



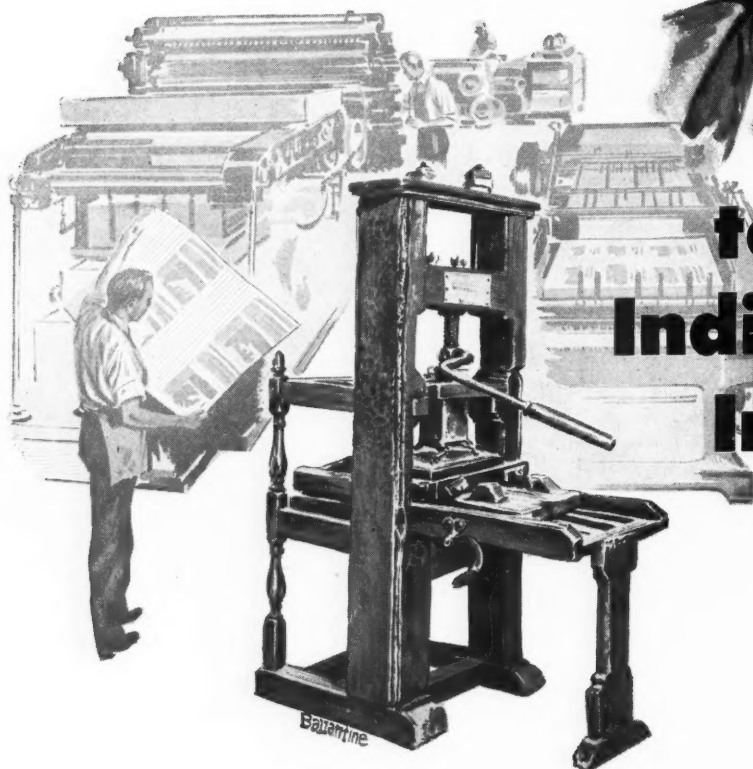
THE INDEPENDENT PRINTER

C H U R C H

Salute...



to an Indispensable Industry



America's high percentage of literacy creates an insatiable thirst for knowledge, which continually pyramids the output of books, magazines, newspapers and advertising material. Indispensable indeed is the Printing Industry. Small wonder that in all American industry it rates second in the number of manufacturing plants, first in salaried employees, sixth in total employees, fifth in total salaries and wages! So upon the occasion of the twentieth Printing Week, we salute all those connected with the graphic arts field. Pride in our own important contributions is tempered by the realization that our position entails definite obligations to develop even better papers for still better printing. To this end the Champion organization pledges every effort today and in years to come.

THE *Champion Paper* AND FIBRE COMPANY... HAMILTON, OHIO

MILLS AT HAMILTON, OHIO... CANTON, N. C... HOUSTON, TEXAS

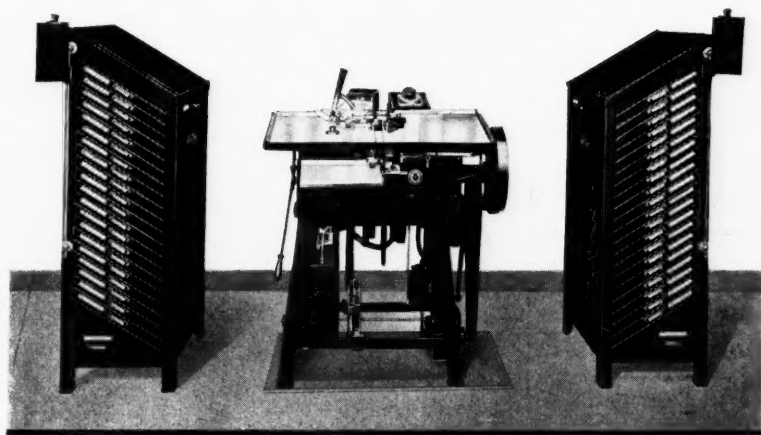
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All-Slug System



- Makes possible the immediate production of display and job composition from 4-point to 96-point.
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- Permits real economy with multiple forms, utilizing full press capacity, and avoiding electrotyping delays.
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- Affords time-saving system of ruleform composition, together with attractive lining typefaces.
- The Ludlow requires no experts for satisfactory operation, nor special care; the machine is simple in design and mechanism.

Elrod

for leads, slugs, rules
and base material of
highest quality

Ludlow Typograph Company . . . 2032 Clybourn Avenue, Chicago 14, Illinois

Published monthly by Maclean-Hunter Publishing Corporation, 309 West Jackson Boulevard, Chicago 6, Illinois. Subscription, \$4.00 a year in advance; single copies 40 cents. (Send Canadian funds—\$4.50 a year; single copies, 45 cents—to The Inland Printer, Terminal A. P. O., Box 100, Toronto.) Foreign \$10.00 a year; three years, \$30.00. Entered as second-class matter, June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3, 1879. Copyrighted, 1945, Maclean-Hunter Publishing Corporation.

BUY ENVELOPES
MADE BY OLD COLONY
FROM YOUR
PAPER MERCHANT

Old Colony Newspaper

A ROUNDUP
OF ENVELOPE NEWS AND
INFORMATION OF VALUE
TO PRINTERS

NUMBER
FIVE

PUBLISHED BY OLD COLONY ENVELOPE COMPANY, WESTFIELD, MASS.
Envelope Makers for Brown Company, Eastern, Hurlbut, Mead, Rising, Strathmore, Valley and Warren

JANUARY
1948

UNDER THE FLAP

By S. GUY ASHLEY
Vice President and Sales Manager

The trouble with this column writing business is — editors! Here I was, all set to write a piece full of sparkle and zest about Old Colony's splendid new die manual . . . one of my best pieces, it seemed to my mind's eye. Then our Editor comes and says, "We'll use the lead story for the new die manual . . . you write on something else as interesting and timely!"

So . . . I won't write about the die manual. I won't even mention it! Instead, I'll report that Old Colony is one of the largest makers of Announcement Envelopes in this Country of ours — and these envelopes are the kind that people have come to look upon as the "Outward and Visible Sign of Quality and Elegance."

These distinguished envelopes have a high cut throat — bold side flaps — a high shoulder — and a puff fold that bespeaks highest quality. The pointed flaps are aristocratic. The square flaps, either plain or deckle edge, appeal to the most fastidious.

Just look through Old Colony's new *Manual of Die Sizes* for a complete listing of Announcement Envelopes . . . Business as well as Social. It's a fine line . . . worthy of being marked "Made By Old Colony Envelope Company."

Now, you know, I'm sort of glad that Editor fellow asked me not to say anything about our die manual after all . . .

The Outward Signs of Quality

Great care is taken in making and labelling boxes for envelopes made by Old Colony. A sturdy box and well-printed, carefully-placed labels are outward signs of Old Colony's insistence on quality and appearance throughout every phase of envelope manufacture.

WHAT DO ENVELOPE CUSTOMERS WANT?

What do customers look for when buying envelopes? A recent Old Colony survey among buyers shows that customers consider good gumming on the flap as the most important point — then quality of paper, tight sealing of corners, cleanness and crispness of folding and sturdiness of boxes. To please *your* customers — specify Old Colony!

HOW TO GET SERVICE ON SPECIAL LAYOUTS

Fifth in a Behind-The-Scenes Series
On Making Quality Envelopes

In printing envelopes from flat stock, before cutting into envelope blanks, there are several important points to be considered in laying out the sheet.

For example, the stock on which the envelope manufacturer draws the layout can make it easy or hard for a printer to work with the layout itself.

At Old Colony, special layouts are prepared by a master craftsman on a stock specially chosen for the purpose — a stock that's strong and durable, that erases easily, and that lays flat.

Each Old Colony layout is

NEW DIE MANUAL GIVES PRINTERS WIDE RANGE OF ENVELOPE STYLES AND SIZES; FREE COPIES AVAILABLE

First Old Colony Die List Issued Since The War Is Illustrated,
Indexed, Cross-Referenced For Easy Use

WESTFIELD, MASS. — Envelope dies ranging in size from $1\frac{1}{8}$ " x 3" to 10" x 13" are catalogued in the handy, pocket-sized die manual just published by the Old Colony Envelope Company.

The first section of the manual shows die sizes, listed according to the shortest dimension and further identified by die number. The style of flap — round, pointed, square, etc. — is indicated. The general classification — announcement, booklet, wallet, official, thumb cut, and so on — is also explained.

Every size and die number is cross-referenced to the second section of the manual where printers will find each particular classification of envelope illustrated, along with a listing of all other sizes and styles of envelopes in that category.

The envelope categories in this second section are: Pointed Flap Announcement; Social Announcement; Pointed Flap; Square Flap; Official and Commercial; Booklet; Wallet; Open End; Round Pointed; Thumb Cut; Billfolder; Policy; and Theater, Drug, Pay and Church envelopes.

In short, the Old Colony Manual is an envelope guide which will help printers get complete size and style information quickly, easily, accurately. It contains a wealth of data, including a special section on window envelopes which reproduces window dies to scale.

Free Copies Available

The Old Colony Die Manual is being mailed to an extensive list of printers and engravers. If you do not receive a copy — or if you would like additional copies, write The Newspaper Editor, Old Colony Envelope Company, Westfield, Mass.

Look TWICE at the Label

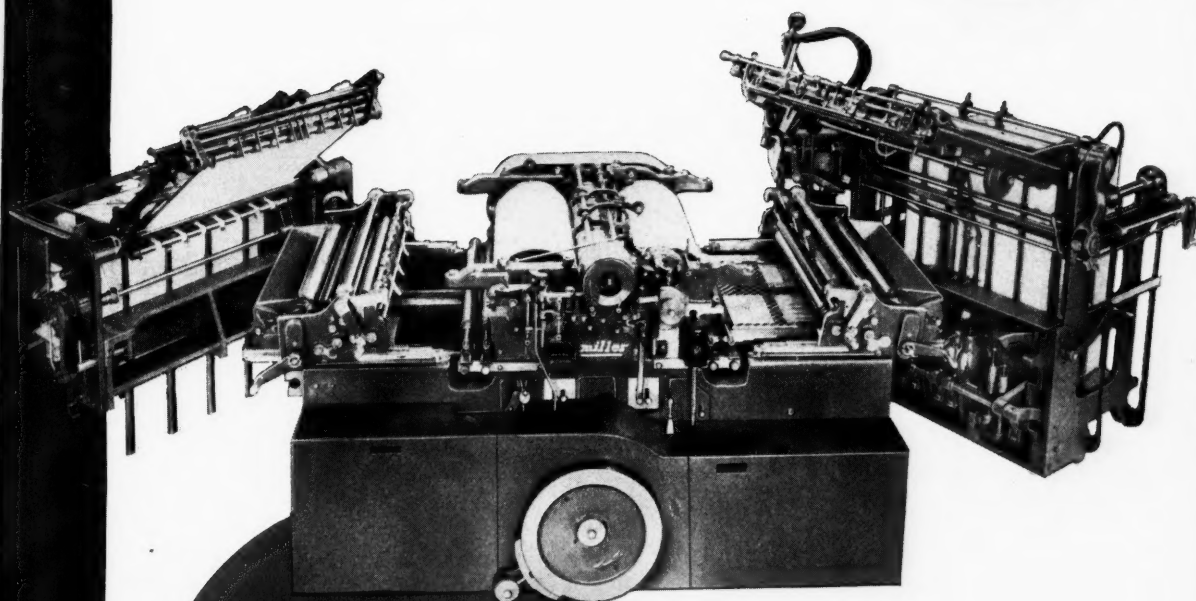


RISING Line Marque Envelopes

Printers who know the fine quality of Rising envelopes will quickly recognize the familiar Rising envelope label, shown above. Look twice — the line at the bottom, "Made By Old Colony Envelope Company", signifies top quality in envelope manufacture.

For Items Not Advertised, Write THE INLAND PRINTER'S "Readers' Service"

We proudly present.



the new Miller 21 x 28 two color press

This press is another addition to the growing Miller family of modern fully automatic cylinder letter-presses. It is heavily built, unusually compact, 4000 to 8000 single color impressions per hour, smooth running, fine register, and above all easily operated with controls at your finger-tips. If you see it in operation—you'll want one. May we send you a specimen sheet from the first run?

SPECIFICATIONS

Maximum Sheet.....21" x 28"
Maximum Size Form in Chase.....19¼" x 26" each
Range of Operated Speed. 2000 to 4000 (8000 impressions)
Overall Dimensions.....5'4" x 12'6"

MILLER PRINTING MACHINERY CO.

Pittsburgh, Pa.



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1898-1947



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The Inland Printer

Leading Business and Technical Journal in the Printing and Allied Industries

VOL. 120 • JANUARY 1948 • NUMBER 4

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Quick Reference Guide 26 CHRISTENSEN-DEXTER Basic Machines for...

FEEDING—CHRISTENSEN CONTINUOUS STREAM FEEDER—For flat bed, rotary and offset presses and varnishing machines where high speed is essential.

DEXTER CONTINUOUS RELOADING CARDBOARD FEEDER—Will feed cardboard up to forty point thickness, to any make flat bed or rotary press, cutter or creaser, and to certain offset presses, in sheet sizes up to the maximum capacity of press.

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DEXTER CONTINUOUS RELOADING METAL SHEET FEEDER—Feeds sheets 38 to 24 gauge, in sizes 14 x 18" to 36 x 44"—at speeds up to 80 per minute. Provides press operation uninterrupted by stops for reloading.

GATHERING and INSERTING—CHRISTENSEN STITCHER FEEDER—for inserting and stitching saddle-bound catalogs and periodicals.

MARTIN ROTARY GATHERER, STITCHER AND COVERER—For gathering signatures of books prior to other binding operations; and for gathering, side-stitching and covering magazines.

TRIMMING—BRACKET SAFETY TRIMMER—For label cutting, booklet trimming, singly or in multiple form—and cutting gang work.

FOLDING—CLEVELAND FOLDING MACHINES—For circulars, greeting cards, booklets singly or in gangs, catalogs, publications, etc. Seven models covering every bindery requirement and handling sheets from 3 x 4" to 42 x 62".

DEXTER JOBBING FOLDER, DOUBLE SIXTEEN and QUADRUPLE SIXTEEN FOLDERS—For job work and book folding in sheets from 12x16" to 44x58".

VARNISHING—CHRISTENSEN VARNISHING MACHINE—For all types of varnishing jobs.

SORTING—DEXTER SORTING MACHINE—For paper mills. Speeds production and eliminates waste motion in coated paper and bond finishing rooms.

BRONZING—CHRISTENSEN HIGH SPEED BRONZER—For all types of sheet bronzing.


Dexter & Christensen Machines

All Dexter and Christensen Products
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results on the press—just good
paper, good glue and
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Flat
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Pancake
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The Brown-Bridge Mills, Inc.
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*"...now, the Home Office
writes* me that..."*



**On Correct Bond.* There it is—the last word on operations. It is aptly written on Correct Bond because this fine rag-content bond is the last word in fine letterheads. There's authority and prestige in its smart, crackling feel—in the clean brilliance that its finish lends to print and typing. For your next letterhead order, specify your printer's choice of bonds—rag-content, air dried Correct Bond.

PRINTERS! This ad appears this month in a list of magazines carefully chosen to appeal to your best customers and prospects. Let this new campaign help *you*. Stock Correct Bond—write for samples and name and address of your nearest distributor.

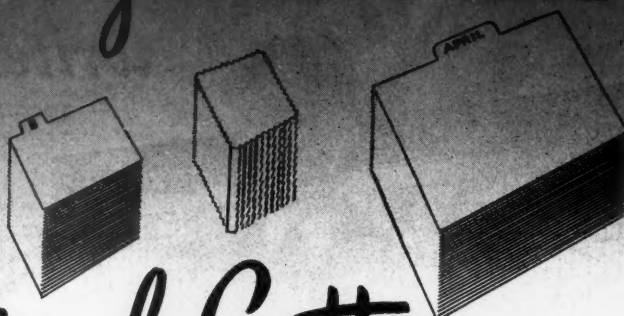
Correct Bond

WHEREVER THE WRITTEN WORD MUST TRULY REPRESENT YOU

HOWARD PAPER MILLS, Inc. • AETNA PAPER COMPANY DIVISION • DAYTON, OHIO

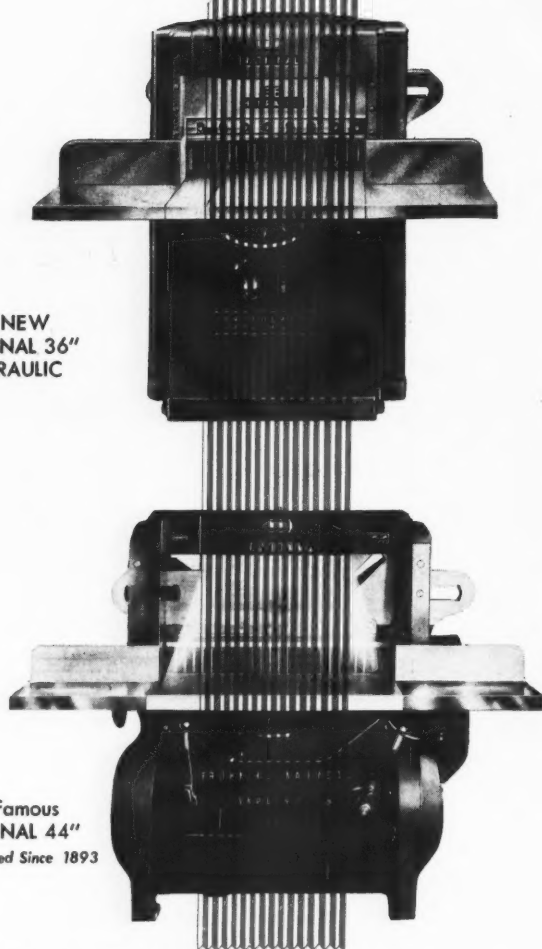
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The Sperry Printer is the latest in precision technical development, another outgrowth of Sperry skills . . . hydraulic, electronic, mechanical and electrical.

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AS Franklin knew, nothing contributes more to the education of a free people than the printed word. But even Franklin, were he alive to celebrate Printing Education Week, January 11-17, would be amazed at the vast amount of paper now produced to foster broader knowledge through printing.

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In this high-speed, high-quality

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Add to this the skill of our veteran craftsmen, more than 600 of whom have been making Oxford papers for twenty years

or longer. Some families have three generations in the mill — a heritage of fine papermaking that is beyond price.

So when you want a print job you can be proud of, specify Oxford. Sold by good paper merchants in principal cities.



Included in Oxford's line of quality printing and label papers are: Polar Superfine Enamel, Maineflex Enamel Offset, Maineflex C1S Litho, Mainefold Enamel, White Seal Enamel, Engravatone Coated, Carfax English Finish, Super and Antique, Aquaset Offset and Duplex Label.

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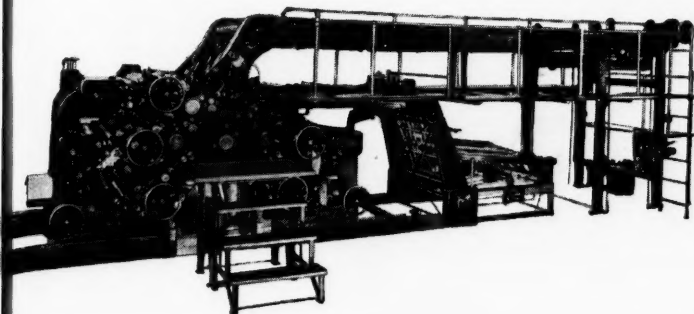
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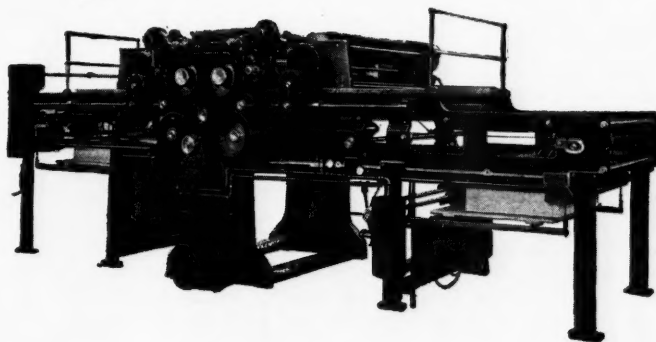
...with the Cottrell 5-color Press



The true economy of quality production and unusual speed is yours with this modern Cottrell 36 x 48 rotary. It is expressly designed to print in five colors at speeds from 5500 to 6000 sheets per hour... with all the smoothness and quality for which Cottrell presses have long been famous.

... with the Cottrell 2-color Press

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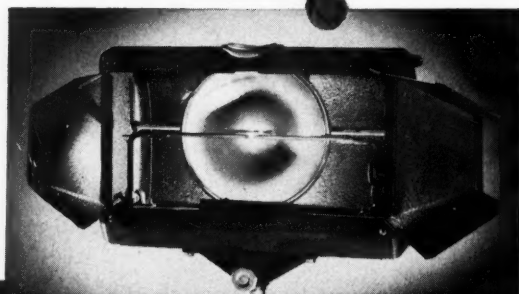
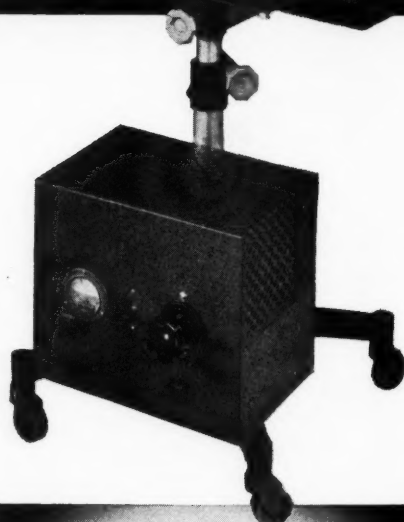


A fully automatic light source especially designed for all photo-mechanical reproduction processes.

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duced best on a fine enamel-coated stock. "Protection" is printed regularly on Consolidated Coated and is one of the many important periodicals for which this finer coated paper is specified.

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⚙️ *Greater Dependability*

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Lawson Cutters do the job *better* because they are rugged and built to insure accuracy. You'll find the *three* Lawson Paper Cutters geared to your individual needs.

The famous Lawson 39" has proved its mettle the whole world over. The Lawson 46" and 52" have as standard equipment, Tip Toe Hydraulic Treadle, Hydraulic 5" Clamp and Positive Clamp Pressure. Optional equipment, (which you may have now or later), includes Motor Operated Back Gauge or an Automatic Spacing device.

All three Lawson Cutters are setting new performance standards. All three are now on display at the Lawson Showrooms. See for yourself why they are the big **THREE** in Paper Cutters.

Main Offices and Showrooms: 426 WEST 33rd STREET, NEW YORK 1, N. Y.

EXCLUSIVE DISTRIBUTORS

HARRY W. BRINTNALL CO., INC. . . . Los Angeles, San Francisco, Seattle
A. E. HEINSOHN PRINTING MACHINERY Denver, Colo.
TURNER PRINTING MACHINERY, INC. Cleveland, Chicago, Detroit
SOUTHEASTERN PRINTERS SUPPLY CO. Atlanta, Ga.
SOUTHWESTERN PRINTERS SUPPLY, INC. Dallas, Texas
SEARS LIMITED Toronto, Montreal, Winnipeg, Vancouver

E.P. LAWSON CO.
NEW YORK
BOSTON PHILADELPHIA

LAWSON . . . PIONEERS IN PAPER CUTTING MACHINERY SINCE 1898

Is it true

type metal?



► "It might have been, son; it no longer is!"

There are differences in type metal similar to those in paper, ink or raised biscuits. For each kind of product there is a typical manufacturing process and substantially the same materials. But there is a difference in the results!

Here's a hair-line rule on a 2-point body made of **Federated Process** type metal. You can roll it up like a ribbon. An ordinary type metal rule will snap before it bends very far."

The answer here is ductility. With all its other qualities **Federated Process** metal has superlative ductility. Ductility is not something you dig out of a hole in the ground. It's a quality that you engineer into type metal by science and skill, and only with the most extensive manufacturing facilities. It belies the old idea that "type metal is just type metal."

*Federated Metals Division, American Smelting and Refining Co.,
120 Broadway, New York 5, N. Y.*

Federated
METALS DIVISION

AMERICAN SMELTING AND REFINING COMPANY



JM100 7-01T

Please Mention **THE INLAND PRINTER** When Writing to Advertisers

17

about that
new equipment
you're planning to buy!

It isn't a bit too early to do some serious thinking*
about the trade-in value of that new offset press or
power paper cutter—*which you haven't even ordered.*

* You can be reasonably sure, if the equipment you purchase today has little to recommend it beyond the promise of "immediate delivery", that such a selling point will have lost much of its glitter when you are ready to talk "trade-in".

Rebuilt Harris offset presses and Seybold paper cutters have, for a great many years, brought top prices in the used machinery field. Many of the same qualities responsible for the original purchase of Harris-Seybold equipment, such as *established acceptance in the graphic arts industry . . . traditionally rugged construction . . . availability of replacement parts . . .* have been important reasons why rebuilt Harris-Seybold equipment has always been in demand.

When the time comes for you to part with that offset press or paper cutter "*which you haven't even ordered*" . . . will you get the top trade-in dollar?

you'll be glad you waited a little longer for

HARRIS OFFSET PRESSES • SEYBOLD PAPER CUTTERS
OTHER HARRIS-SEYBOLD GRAPHIC ARTS EQUIPMENT

HARRIS-SEYBOLD



COLOR PHOTO BY RALPH RAWLINGS—UNDERWOOD

"Mr. Smith will give you just 30 Seconds"

SUCH AN INVITATION would stop the best of salesmen in his tracks. And yet 30 seconds or *less* may be the time allowed your letter that arrived in Mr. Smith's morning mail.

That's why letters must be *right* . . . both in content and appearance. To achieve fine appearance . . . to

change a split-second glance into full consideration of what they have to say . . . thousands of executives insist that letterheads be printed on HOWARD BOND.

HOWARD BOND, whether in whitest white or any of its many clean colors, makes a quick bid for favorable

attention. It literally "backs up" your message with the appearance that earns a definite edge in interest. Thousands of printers recommend it. Uncounted thousands of business firms use it . . . in such quantities that it is known from coast-to-coast as "The Nation's Business Paper."

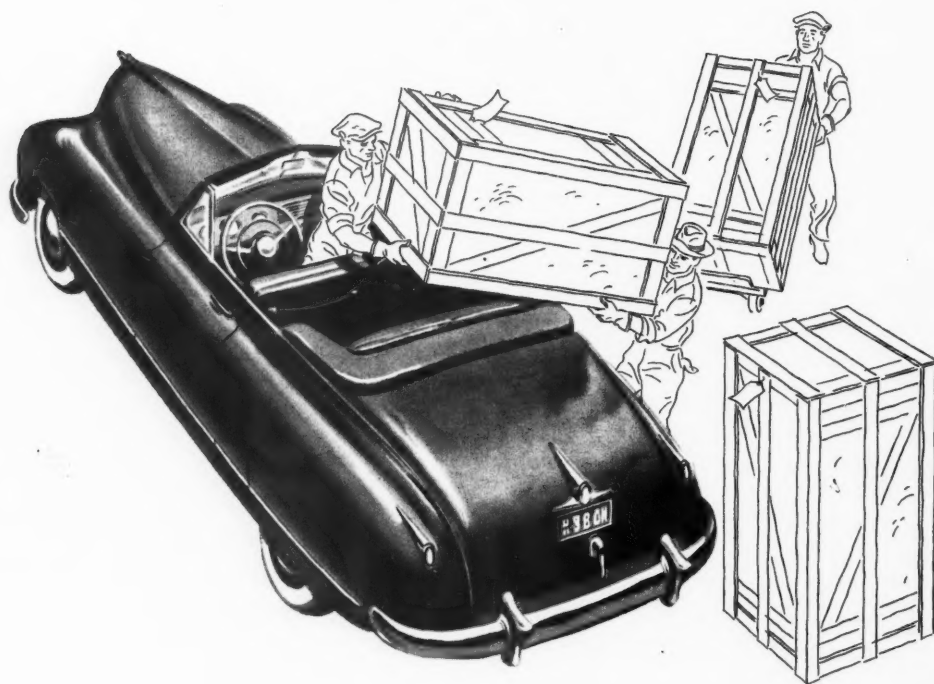
HOWARD PAPER MILLS, INC. • HOWARD PAPER COMPANY DIVISION, URBANA, OHIO

Howard Bond

"THE NATION'S BUSINESS PAPER"



Convertibles for Cargoes?



After all, there's a place for everything

We'd be the last to deny that business needs a higher priced bond for many important purposes. But for office and factory forms, and for the hundred-and-one pieces of routine business printing, business needs a practical *low-cost* bond . . . one that takes pen, pencil, and

typewriter . . . one that prints crisply, erases cleanly and makes plenty of carbons. That perfectly describes Maxwell Bond. Although Maxwell Bond is fine enough to be watermarked with pride, it's sensibly priced for the work-a-day tasks it's especially made to do.

Maxwell Bond

America's Favorite Low-Cost Bond

Howard Paper Mills, Inc. • Maxwell Paper Company Division • Franklin, Ohio



**A Complete Service
from idea to the press**

LETTERING
Lettering, photo retouch-
ing, copy preparation,
photo color process.

PHOTOGRAPHY
Black and white, color,
all types color prints and
color separations.

PRINTING PLATES

Offset or Letterpress.

Roll on our alley

**MAIN OFFICE AND PLANT • 110 OTTAWA ST.
TOLEDO 4, OHIO PHONE GARFIELD 3781**

NEW YORK OFFICE
148 West 23rd Street Phone Chelsea 3-5309

DETROIT BRANCH
825 West Elizabeth Phone Randolph 9122

CHICAGO OFFICE
222 West Adams Street Phone Randolph 5383

Whenever you have a production problem... need better plates, art or photography... something unusual... the difficult to produce... roll it our way.

Our staff of over 100 master craftsmen, working with the latest type equipment can give you the superior result ALWAYS in amazingly short time... and at a cost that you'll consider most reasonable.

The more than 200 of America's leading lithographers and printers who regularly bowl in our league would be satisfied with nothing but high scoring.

Operating 24 hours a day, your job is put in the works the minute it is received. Conveniently located, we afford overnight deliveries to most printing centers.

Shoot us your next requirements in color process plates, black and white, highlights, originals for hand transfer, photo-composed press plates—albumen or deep etch, direct color separations, commercial art, commercial photography, or any preparatory work for the offset or letterpress printer.

Graphic Arts Corporation OF OHIO
MAKERS OF FINE PRINTING PLATES
TOLEDO • NEW YORK • CHICAGO • DETROIT

Photograph is of paper sculptured figure by Mary Hillson in colors with Waterfalls thin rigid forms papers.



"It's too much...
he wants 8 carbons!"

And the kind of paper we use around here won't take even a third good carbon.
Save that gal. Shift to Waterfalls Microsized* Business Forms Paper.

Trade Mark

Unusual rigidity

Thin for its weight

Takes good carbons

Good surface for pen and ink writing

Brightness enhances visibility of print

Fine erasing surface

*Microsizing is a new finishing process which deposits on long fiber

Trade Mark

(Swedish pulp) paper a thin layer of a unique mineral emulsion. The paper retains its inherent strength and permanency. Waterfalls Microsized Business Forms Papers provide a fine ink writing and erasing surface.

Send for our booklet "Business Forms Design and Standardization" -- a comprehensive manual on design, prepared by a recognized authority.

Made by

Paper Corporation of America

Empire State Building

New York 1, N. Y.

Copyright 1947, Paper Corporation of America

Mills: Cheboygan, Mich., Manchester, N.H., Jarpen, Sweden

DAYCO FACT

Heat Set—Metallic—Fast Drying—Oil Base

WITH DAYCOS YOU CAN USE

ANY KIND OF INK



Each Dayco Roller is a custom-built product—built to your specifications for your printing jobs. Just exactly the right resilience is built into its special soft rubber base. The patented renewable surface is specially compounded for perfect printing results with any kind of ink your job requires. You can use heat set, metallic, fast drying, oil base, or many of the so-called “special inks” on a Dayco Roller without impairing its efficiency in any way.

The fact that you can use exactly the right kind of ink to secure the finest printing results is only one of many reasons Dayco Rollers are standard in printing plants the country over. Listed in the panel at the right are other reasons why Dayco Rollers will help you protect your reputation as a top-quality printer . . . help you reduce production costs. A Dayco Roller Specialist will gladly discuss them with you in detail. Write today.

THE DAYTON RUBBER COMPANY
DAYTON 1, OHIO

MORE DAYCO FACTS

that mean better quality
printing at lower cost

1. Dayco Rollers are ground so accurately that a kiss touch is obtained with minimum adjustment.
2. When Dayco Rollers finally wear out they can be re-Dayco'd at one third the cost of new rollers.
3. Daycos take all kinds of inks . . . heat set, metallic, fast drying, oil base, or many of the newer inks.
4. Dayco Rollers are so perfectly balanced they run true without whip, reduce bearing wear to a minimum.
5. Fused Ends of Dayco Rollers make possible finest roller performance plus renewable surface economy.
6. Dayco Roller compounds are multiple refined to secure a uniform, soft, smooth texture so essential to fine printing.

*Ask about the Dayco EXTRA
CORE Plan*

Dayton Rubber

Please Mention THE INLAND PRINTER When Writing to Advertisers



Catalog Cover—Blue
Marco, Seal Finish

Better than a Duck's back



Marco and its companion pieces, Marvelhide and Marvelleather, come in a wide variety of colors and finishes. Ask your Marvellum dealer for swatches . . . or write us direct.

Next time a client tells you he wants a cover stock that's definitely waterproofed, use Marco. Moisture can't get through Marco's tough make-up — or spoil its good looks either.

But that's only *one* of Marco's fine points. Besides being waterproofed, it's a handsome soil- and wear-resistant title-holder with a record for getting repeat business. And it has print-ability for everything from the simplest press job to hot stamping.

Any kind of printed matter reaches a state of perfection when it's bound on two sides by Marco. See for yourself — if you haven't already.

The MARVELLUM CO.

GENERAL OFFICES
HOLYOKE, MASSACHUSETTS

Sales Offices

308 West Washington St., Chicago 6, Ill. • 55 New Montgomery St., San Francisco 5, Calif.

*Papers
Distinctive*

MEAD
papers

NATIONALLY DISTRIBUTED

ALA.: W. H. Atkinson Partin Paper Co.; Sloan Paper Co.
ARIZ.: Blake, Moffitt & Towne; Graham Paper Co.; Zellerbach.
ARK.: Roach Paper Co.
CAL.: Blake, Moffitt & Towne; Commercial Paper Corp.; General Paper Co.; Seaboard Paper Co.; Zellerbach.
COLO.: Dixon & Co.; Graham Paper Co.
CONN.: Alling Paper Co.; John Carter & Co.; Rourke-Eno Paper Co.
D. of C.: R. P. Andrews; Barton, Duer & Koch; Frank Parsons Paper Co.; Stanford.
FLA.: Capital Paper Co.; Central Paper Co.; Everglade Paper Co.; Jacksonville Paper Co.; Tampa Paper Co.
GA.: Atlantic Paper Co.; Graham Paper Co.; Macon Paper Co.; Sloan Paper Co.
IDA.: Blake, Moffitt & Towne; Zellerbach.
ILL.: Berkshire Paper Co.; Birmingham & Prosser; Blunden-Lyon Paper Co.; Chicago Paper Co.; Dwight Bros. Paper Co.; LaSalle Paper Co.; Marquette Paper Corp.; Messinger Paper Co.; Midland Paper Co.; Swigart Paper Co.; James White.
IND.: Central Ohio; Century Paper Co.; Crescent Paper Co.; Diem & Wing; Indiana Paper Co.; C. P. Lesh Paper Co.
IOWA: Birmingham & Prosser; Carpenter Paper Co.
KAN.: Carpenter Paper Co.; Graham Paper Co.
KY.: Louisville Paper Co.
ME.: C. M. Rice Paper Co.; C. H. Robinson.
MD.: Antietam Paper Co.; Barton, Duer & Koch; Baxter Paper Co.; O. F. H. Warner & Co.
MASS.: Bulkley, Duntion & Co. Inc.; Butler-Dearden; Carter, Rice & Co.; John Carter & Co.; Century Paper Co.; Colonial Paper Co.; H. Lindenmeyr & Sons; Mill Brand Papers; Paper House of N. E.
MICH.: Beecher, Peck & Lewis; Birmingham & Prosser; Carpenter Paper Co.; Graham Paper Co.; Grand Rapids Paper Co.; Seaman-Patrick; Union Paper & Twine.
MINN.: John Boshart; General Paper Corp.; The John Leslie Paper Co.
MO.: Acme Paper Co.; Birmingham & Prosser; Central States Paper Co.; K. C. Paper House; Tobey Fine Papers, Inc.; Weber Paper Co.; Zellerbach.
MONT.: Carpenter Paper Co.; The John Leslie Paper Co.
NEB.: Carpenter Paper Co.
N. J.: Bulkley, Duntion & Co., Inc.; Forest Paper Co.; Lathrop Paper Co.; Lewmar Paper Co.; J. E. Linde; Henry Lindenmeyr & Sons.
NEW YORK CITY: H. P. Andrews; Bulkley, Duntion & Co., Inc.; M. M. Elish & Co., Inc.; Forest Paper Co.; J. & F. B. Garrett; Green & Low; Lathrop Paper Co.; J. E. Linde; Henry Lindenmeyr & Sons; Majestic Paper Corp.; Marquardt & Co.; Merriam Paper Co.; Miller & Wright; A. W. Pohlman; Reinhold-Gould, Inc.; J. F. Sarle Co., Inc.; Schlosser Paper Corp.; Vernon Bros. & Co.; Walker-Gould-Plehn; Willmann Paper Co.
NEW YORK: Fine Papers Inc.; Franklin-Cowan; J. & F. B. Garrett; V. H. Smith.
N. C.: Dillard Paper Co.
OHIO: Alling & Cory Co.; Central Ohio; Chatfield Paper Corp.; Cleveland Paper Co.; Diem & Wing; The Johnston Paper Co.; Ohio & Michigan Paper Co.; Scioto Paper Co.; Union Paper & Twine Co.
OKLA.: Carpenter Paper Co.; Tulsa Paper Co.
ORE.: Carter, Rice & Co. of Ore.; Fraser; Zellerbach.
PA.: Alling & Cory Co.; Chatfield & Woods; A. Harlung & Co.; Johnston, Keffler & Trout; Thos. W. Price Co.; Raymond & McNutt Co.; G. A. Rinn; Schuykill Paper Co.; H. A. Whitman & Co.; Whiting-Patterson Co.; Wilcox-Walter-Furlong.
R. I.: John Carter & Co.; Narragansett Paper Co.; Carter, Rice & Co.
S. C.: Dillard Paper Co.
TENN.: Bond-Sanders Paper Co.; Clements Paper Co.; Graham Paper Co.; Southern Paper Co.; Southland Paper Co.
TEX.: Carpenter Paper Co.; C. & G. Paper House; Clamplitt Paper Co.
UTAH: Carpenter Paper Co.; Zellerbach.
VA.: Cauthorne Paper Co.; Dillard Paper Co.; Old Dominion Paper Co.; Richmond Paper Co.; B. W. Wilson.
WASH.: Blake, Moffitt & Towne; Carter, Rice & Co. of Wash.; Zellerbach.
WIS.: Bauer Paper Co.; Wisconsin Paper & Products Co.; Woelz Bros.



PAPER EATERS

Typewriters, adding machines, calculators, duplicating machines, and similar proficient devices have always had a voracious appetite for paper, but never more so than today. With the nation's paperwork at an all-time high, the business-machine industry is expanding to overtake its backlog of orders and to meet the demands of an estimated \$400,000,000 year.

Machines built for paperwork require paper not only to work with but also to be workable, for paper is a factor in their design, manufacture, demonstration, advertising, sale, packing, and shipping. The expanding business-machine industry, therefore, is one more reason why the paper industry must also expand.

The paperwork of "Paper Makers to America" cannot all be done by business machines. Only paper-making machines, working ceaselessly, can begin to satisfy the growing demand of America's expanding industries for Mead Papers of the Mead, Dill & Collins, and Wheelwright lines — "the best buy in paper today."

★★★ Mead offers a completely diversified line of papers in colors, substances, and surfaces for every printed use, including such famous grades as Mead Bond; Moistrite Bond and Offset; Process Plate; Wheelwright Bristols and Indexes; D & C Black & White; Printflex; Canterbury Text and Cover Papers.



ESTABLISHED 1848

MORE THAN ONE HUNDRED YEARS OF PAPER MAKING

THE MEAD CORPORATION • "PAPER MAKERS TO AMERICA"

The Mead Sales Company, 230 Park Avenue, New York 17 • Sales Offices: Mead, Dill & Collins, and Wheelwright Papers • Philadelphia • Boston • Chicago • Dayton

For Items Not Advertised, Write THE INLAND PRINTER'S "Readers' Service"

New Folder NOW READY! Tells How To Make Transparent Impressions

Pulling proofs on either cellophane or glassine is just as easy as making black and white proofs when you have the necessary equipment and follow simple instructions. In fact, with the No. 4T Vandercook, you can make either transparent, reproduction, or regular proofs. The transparencies—printed on both sides from either type or halftones—are used in the production of lithographic plates and rotogravure cylinders. Full information gladly mailed upon request.



VANDERCOOK & SONS, INC.

General Offices: 908 North Kilpatrick Avenue • Chicago 51, Illinois



SPECIFICATIONS

No. 4T Vandercook Proof Press

Bed Size.....15"x 35"
Max. Sheet .14 3/4"x 20"
Max. Form....14"x 18"
Floor Space..2'2"x 6'6"

Illustration
shows cello-
phane proof
being removed
from cylinder.

Mail
Coupon

- ☐ Send Informative Booklet on No. 4T Vandercook
☐ Send catalog of all Vandercook Proof Presses

INDIVIDUAL _____
FIRM _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

Study FRANK H. YOUNG'S ADVERTISING LAYOUT COURSE At Home

Now is the time to make your spare time pay. Increase your earning power. Mr. Young, international layout authority, offers a complete Home Study Course to help printers, advertising men, artists, etc. Learn by mail how to use sound layout principles. Receive Mr. Young's own personal criticisms. Endorsed by graduates. Write to Dept. J-148 for free details.

AMERICAN ACADEMY OF ART

Frank H. Young, Director
25 E. Jackson Boulevard Chicago, Ill.

AMERICAN ROLLERS

TRY
THEM

FOR
**SUPERIOR
PRINTING
IN 1948**

AMERICAN ROLLER CO.

1342 N. HALSTED ST., CHICAGO 22, ILL.
225 N. New Jersey St., Indianapolis 4, Ind.



meet mr. ganglmeyer

This is energetic Lon Ganglmeyer*, who likes to relax with a trumpet, but gets an even bigger kick out of showing lithographers the sweet music they can get with Harris Litho-Chemicals for platemaking and press fountains.

Lon can also play some mighty solid tunes on a process camera. If you're out near the Golden Gate, have him drop in to show you how Harris Deep Etch coatings retain the full fidelity of good negatives.

Distributors of Harris Litho-Chemicals are good men to know. Give Lon or his brother litho-technicians, in principal cities, a call and you'll receive prompt assistance with your chemical problems. Newcomers to the offset field are especially welcome.

In any case, dial your nearest distributor now to be placed on the mailing list for "Harris Impressions", a bimonthly bulletin of shop tips and helpful articles for the offset trade. It's free.

HARRIS LITHO-CHEMICALS

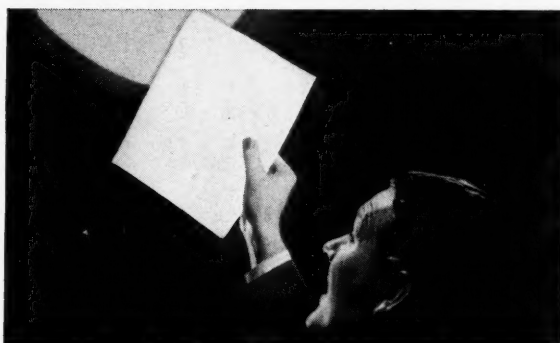
DEEP ETCH PROCESS, SURFACE
PLATE AND PRESS CHEMICALS

AKRON, Metzger Supply	JE 4136
ATLANTA, Harris-Seybold	JA 1783
BALTIMORE, Sinclair & Valentine	MU 6946
BOSTON, Roberts & Porter	HAN 8654
CHICAGO, Roberts & Porter	WAB 6935
CINCINNATI, McKinley Litho	CH 6323
DENVER, A. E. Heinson	TA 8251
DALLAS, Harris-Seybold	C 8305
DETROIT, Roberts & Porter	TE 27900
LOS ANGELES, California Ink	PR 3033
MONTREAL, W. E. Booth	BE 2328
NEW YORK CITY, Roberts & Porter	CA 61646
PORTLAND, California Ink	AT 6371
*SAN FRANCISCO, California Ink	EX 4688
SALT LAKE CITY, California Ink	5-1952
SEATTLE, California Ink	MA 3215
TORONTO, W. E. Booth	EL 3285
VANCOUVER, Dominion Printing Ink & Color Co., Ltd.	MA 1025
WASHINGTON, D. C., Phototechnical Lab.	TR 8345

Now you have the advantage of the finest Hammermill Bond in history!



YOUR PRINTING SPARKLES on this whitest white Hammermill Bond ever produced. Compare this improved sheet with any other all-purpose bond and see how much whiter it is.



YOUR CUSTOMERS LIKE improved Hammermill Bond's bright surface, its cleanliness, its uniform strength and dependability. You'll enjoy the way they reorder the jobs you place on it.



ANOTHER HIT WITH CUSTOMERS is the way improved Hammermill Bond takes clean, neat erasures. This saves them money, for corrections can be retyped with no need to do the whole letter over.



AND YOU'LL LIKE improved Hammermill Bond's performance in your pressroom. Hammermill Bond has always been a well-behaved sheet, and now it rates still higher than ever.

During the war years, Hammermill technicians never stopped in their efforts to produce a better all-round Hammermill Bond than ever before. Mill improvements, more efficient processes affecting many manufacturing steps, are in operation today. In the past two years plant additions—equivalent to an entire new modern paper mill—have been completed.

Hammermill management, engineers and craftsmen have been working for you... part of a long-term program of steady improvement. The result is improved Hammermill Bond—the finest, best—"balanced" sheet in its history!

Improved Hammermill Bond is being advertised in *The Saturday Evening Post*, *Time* and *Business Week* and other national magazines. Your customers will be asking about it. Be prepared to show them samples. Send for the sample book.



Send this coupon now

HAMMERMILL BOND

Hammermill Paper Company, 1601 East Lake Road, Erie, Pennsylvania
Please send me—**FREE**—a sample book showing the wide color range and brighter white of Hammermill Bond.

Name _____ Position _____
(Please attach to, or write on, your business letterhead)

1P-JA

Before choosing any printing paper
Look at Levelcoat*



Look at Levelcoat...
for brightness

Sparkling as Arctic starlight is the clear brilliance of Levelcoat* printing paper. For the brightness of Levelcoat is more than surface deep; it begins with a skillful blend of "brightness" fibers in the very pulp itself. And with a lustrous coating of specially selected clays, Levelcoat emerges in fullest beauty.

Look at Levelcoat...
for smoothness

Here's a printing surface that's as smooth as upland snow! That's because it's so uniformly coated by Kimberly-Clark's precision-controlled method... using clays that might pass as face powder, they're so soft, so clean, so flour-fine. Let the soft glow of Levelcoat papers spotlight your printed message!

Look at Levelcoat...
for printability

Advertisers like Levelcoat for its printing qualities which make coloring or black type snap with contrast. Printers like its character—and the uniformity which gives trouble-free performance ream after ream, run after run. Try this beautiful paper yourself—and give your printing the Levelcoat lift.

IT PAYS TO LOOK AT LEVELCOAT



National Printing Week 1948
 January 11 to 17

* TRADEMARK

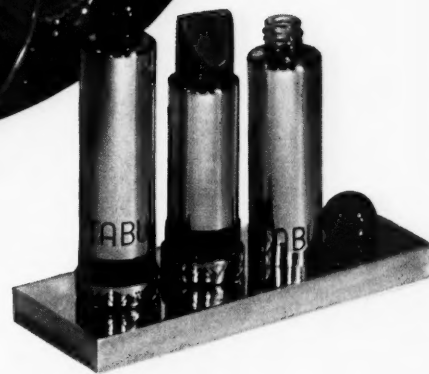
KIMBERLY-CLARK CORPORATION, NEENAH, WISCONSIN

SEE OTHER SIDE



Lyman
Emerson

Lipstick TABU



On your lips, a "forbidden" red and the "forbidden" fragrance too. Color and scent designed for the lips of women who dare . . . and care! And Tabu conceals some of the fabulous perfume itself in a secret vial, complementing its lipstick. \$2.50 including the perfume (tax extra).

See other side.

Dana

KOHL & MADDEN

Kromekote Inks for Champion Kromekote Papers

**High-lustre offset and letterpress
printing with
ALL THESE ADVANTAGES:**

- No varnishing or laminating
- Smooth, soft colors without harshness
- Fine-trapping inks for multiple colors
- Permanently sunfast if desired
- No discoloration with age

For can and bottle labels, book jackets, box wraps, booklet and magazine covers, commercial displays, and many other uses for high-lustre printing . . . Kohl & Madden Kromekote Lithographic and Letterpress Inks on Kromekote papers give bright, beautiful finished work without the added cost of varnish or lamination.

These Kohl & Madden Inks are typical of the

full line of inks for all modern printing purposes . . . New papers and new methods are a welcome challenge to Kohl & Madden "ink-genuity". With Kohl & Madden fast, personalized service on every job, you have an ideal combination for top quality work at lowest cost to you.

Ask for details on Kohl & Madden Inks today.

KOHL & MADDEN printing inks

MANUFACTURING PLANTS: CHICAGO—1132 S. Jefferson Street • NEW YORK—636 Eleventh Avenue
Seeley 7560 Circle 6-1340

SALES OFFICES: Baltimore, Md.—48 Keswick Road
Buffalo, N. Y.—501 Washington
Detroit, Mich.—1035 First Street
Fort Worth, Tex.—2940 Timberline Drive
Philadelphia, Pa.—249 S. Van Pelt Street
Rochester, N. Y.—75 Dalkeith Road
St. Louis, Mo.—1825 N. Broadway
St. Paul, Minn.—1220 Cherokee

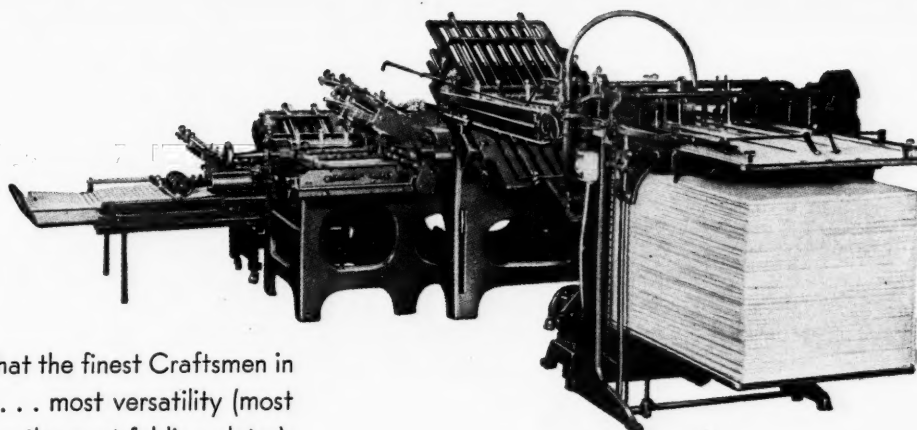
ROTATION OF COLORS used on reverse side
(KROMEKOTE INKS)

Red C-3399
Black C-2487
Yellow C-2478
Blue C-2431

Precision Engineering and Careful Construction Bring You Long Life and Unequalled Production

Baum

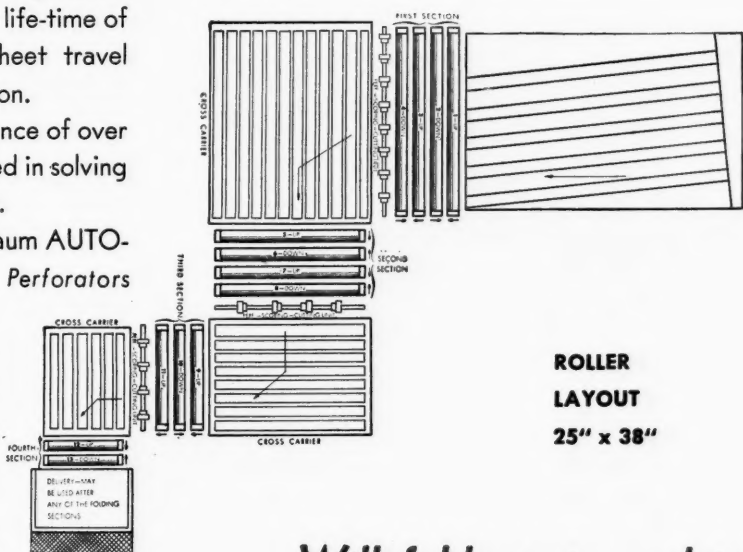
25 x 38
THIRTEEN FOLD
PILE FEED or
CONTINUOUS



★The finest folder that the finest Craftsmen in the world can build . . . most versatility (most styles of folds because the most folding plates). Finest accuracy . . . automatically registered. Heaviest precision construction for life-time of profit-creating service. Fastest sheet travel speed, therefore greatest production.

The aggregate operating experience of over ten thousand Baum Users has resulted in solving every feeding and folding problem.

This model and all other model Baum **AUTO-MATIC** Folders are *Automatic Perforators* (both directions in the same operation). All models are also *Rotary Cutters*. You enjoy huge velvet profits by eliminating many of your present cutting operations. **PERFORATING** . . . as many lines as desired, both directions same operation delivering sheets flat. **MULTIPLE CUTTING**, folding several on, cutting out the marginal bleeds and end trims while folding.



**ROLLER
LAYOUT
25" x 38"**

*Will fold, paste and trim,
and fold for mailing
6,000 booklets per hour*

**ORDER
NOW**

RUSSELL ERNEST BAUM

**ORDER
NOW**



The Bettmann
Archive

TEMPUS FUGIT OR THE FIFTY YEARS THAT SAW A NEW WORLD BORN



A half-century is not so long in time. But in terms of the changes they have brought these 50 years just past seem ages long. Think of the printing industry, for example (as typified by the shop above, which may well have been one of our first customers). Handwritten copy, set by flickering gaslight with a red hot, pot-bellied stove providing the air conditioning.

But what a job they did... editor, ad man, printer, yes, and paper-maker, too. They changed our thinking and our way of life. Unceasingly, they preached the gospel of Democracy and prepared us to accept and later to demand its

material benefits, providing the markets that made them possible in greater profusion than in any other spot upon the globe.

They chased the grocery store cat from the cracker barrel and prune box and brought immaculately packaged foods and fresh uncontaminated milk to the American home. Through printed education, they helped to make our public health the envy of the world.

It's been a phenomenal fifty years for America.

And, as we pause at the threshold of our second half-century, we look back at the past and humbly tip our hat. INTERNATIONAL PAPER COMPANY, 220 East 42nd Street, New York 17, N. Y.

INTERNATIONAL PAPERS

For Printing and Converting





Linotype simplifies
maintenance in a

keyboard
without
secrets

Ninety keys, each with its weight, trigger, cam, yoke, spring and pins. Only on Linotype is each part immediately accessible.

This means more than convenience. It promotes regular inspection and timely correction of parts requiring cleaning and adjustment. It contributes to a smoothly functioning keyboard and efficient production of type slugs.

Linotype's exclusive swinging keyboard brings every part of the mechanism within easy reach. Cams lift easily . . . without tools or maneuvering. The rubber roll shaft is removed by loosening a single screw. The key bar assembly comes free as a single unit.

This accessibility saves valuable time. It's representative of Linotype's practical construction—engineered to simplify maintenance and provide a long life of dependable service. Only Linotype has the swinging keyboard. MERGENTHALER LINOTYPE COMPANY, 29 Ryerson Street, Brooklyn 5, New York.



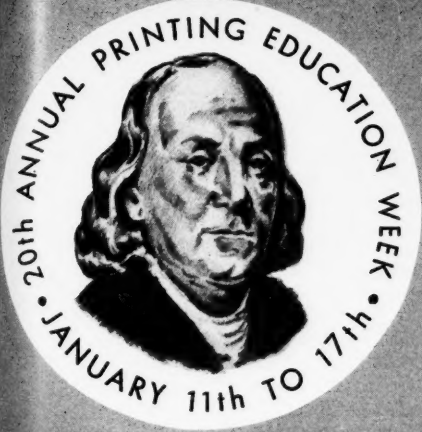
Set in Linotype Garamond Bold No. 3 Family

When Writing These Advertisers, Please Mention THE INLAND PRINTER



he future for printing looks bright. Many new developments should appear from now on. Speed! speed! speed! seems to be the cry. Let us dedicate ourselves to a speed which will still enable us to produce quality. Faster presses, quick-drying inks, atomic energy, electronics. As these new things appear on the horizon, I envy the youth just entering the industry. Let us select the best. Let us give them training second to none. Let us make great artists and engineers of the new generation of printers.

JAMES RUDISILL



THE INLAND PRINTER

Leading Business and Technical Journal in the Printing and Allied Industries

J. L. FRAZIER, Editor • JANUARY 1948

Trade Associations Working to Expand And Improve Their Services in 1948

● DEVELOPMENT of improved and expanded services for printers and lithographers marks the 1948 programs of the national trade associations that represent the various branches, processes, and products in the graphic arts industry, it is indicated by reports from association officials.

These services range from assisting in solving problems which are most effectively handled upon an industry-wide basis, such as labor-management relations and legislation, to activities that help the individual printer conduct his daily business more profitably.

In the latter group are included the development and promotion of uniform cost accounting systems, better production standards, and other management services. Education and research, companion activities designed to provide a better trained personnel and a modernized technology, will play a greater part than ever in the 1948 programs of the trade associations.

PIA Lists Goals for '48

Increased recognition of the need for co-operative effort in solving industry problems and raising industry standards, and the contributions which trade associations make to these ends, is reflected in healthy membership growths enjoyed by most of the groups.

Outlines of each association's plans and goals for the coming year, which follow, are based upon statements furnished by presidents or secretaries of the organizations, in response to an invitation from

By Glenn C. Compton

NEW YORK EDITOR

THE INLAND PRINTER that they present their "targets for 1948."

In setting up its targets for 1948, Printing Industry of America applied this criterion, says Donald L. Boyd, president: Can PIA supply the nation's printers those services which they must have to operate effectively but which they cannot obtain from any other source at a comparable cost?

Mr. Boyd lists PIA targets under four major headings: better labor and personnel relationships; more and improved technical research,

education, management services; active assistance on all legislation, including taxation; vigorous programs to improve trade relations with the suppliers and machinery manufacturers and to increase the supply of materials and equipment.

These are four broad areas in which the printer is frequently at a loss to operate, and they encompass problems with which local associations cannot ordinarily deal, says Mr. Boyd.

Under labor relations, problems posed by the Taft-Hartley Act, which involve employment of outstanding legal counsel and formulation of policies to safeguard the industry, will engage the attention of the Union Employers Section of PIA. The Master Printers Section, although interested in the outcome of the ITU controversy, will concentrate on obtaining, testing, screening, and training new manpower. Both sections will work to promote better personnel relations and increased productivity. Information and counseling services to local associations and individual printers will be expanded.

Simplified Control Program

Major management service project of PIA will be the rewriting and simplification of its management control program, designed to give the average printer a simplified control of his operations and cost. A new uniform cost system is also being distributed.

Twenty publications now in the works will be added to the six which have already resulted from the joint



The president of Printing Industry of America, Donald L. Boyd, of Huntington, West Virginia

efforts of the PIA research committee and Government Printing Office. Also more technical experts will be sought in this research effort to advance the industry technologically and thus offset rising costs of labor and of the materials and equipment.

The PIA program for tax relief, launched in 1947, will continue to be pushed in 1948. The PIA tax proposal, endorsed by students of taxation, economists, and other small business trade associations, would permit the printer to set aside a tax-free reserve up to \$25,000 a year for reinvestment in his business. The association will continue to oppose any increase in postal rates which might be injurious to the printing industry.

Uniform Sales Agreement

High on the agenda of the new PIA trade relations committee will be efforts to insure adequate paper supplies. "Since its inception," says Mr. Boyd, "PIA has been the watchdog of the paper supply. Its continuous pressure on the paper industry is acknowledged by many paper manufacturers to be a major factor in their efforts to increase supply. For 1948 we have several new targets to aim for in the field of trade relations.

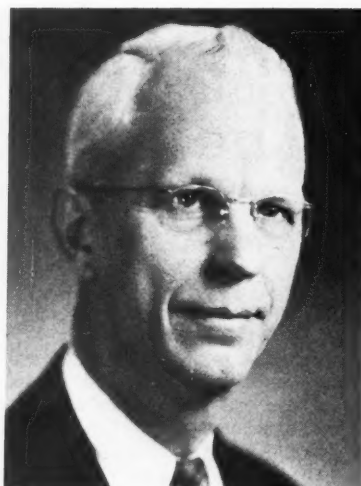
"In addition to reestablishing the historical discounts for prompt payment of bills, we are going to work on the whole problem of preferential or differential discounts not available to all printers, and other pricing policies which we consider inimical. Naturally, as the national association of the printing industry, we will make every effort to do this in a spirit of harmony and co-operation, for we believe that it is in the interest of both the paper and printing industries to harmonize their viewpoints at all times."

With respect to machinery, the trade relations committee will seek to work out with manufacturers a uniform sales agreement to apply on all purchases.

In little more than two years PIA has built itself into a trade association truly representative of the commercial printing industry, comprising forty-seven affiliated local associations and many members-at-large, and representing 85 per cent of the volume produced in the United States. "But there are thousands of printers who are not affiliated," says Mr. Boyd, in a bid for greater support. "PIA is a big tent and there is room in it for every printer and every process and product group."

● Increasing the membership and providing better service to local clubs are the chief targets for 1948 for the International Association of Printing House Craftsmen, according to a statement made by A. Gordon Ruiter, president.

Stating that the possibility of a membership of 25,000 to 30,000 and a local club in every city of average size is not out of the question, Mr. Ruiter says that the International "has as one of its endeavors for 1948 a concerted effort for a substantial increase in membership through the activities of the local club organizations and the institut-



A. Gordon Ruiter, president of the International Association of Printing House Craftsmen

ing of new local clubs throughout the entire United States, Canada, and other parts of the globe, with efforts directed toward European countries. Before the close of 1948 we look for at least eighty clubs and 12,000 members."

Printing Week Celebration

Promotion of the celebration of Printing Week in January is one of the major projects of the International. It is expected that a great majority of the present seventy-five clubs will take part in the celebration of the event, the purpose of which is to emphasize the importance of the graphic arts in the business world.

By careful attention to mailing lists and through the co-operation of the editor, executive secretary, and local club secretaries, a special effort will be made to get a copy of *Share Your Knowledge Review* in the hands of every member and on time. To eliminate overlapping of effort, the research and educational committees have been combined

into one, and the activities of the new committee will be fully reported in the monthly issues of *Share Your Knowledge Review*.

Greater efficiency in the management of the association's affairs is looked for in 1948, now that permanent International headquarters have been established in Cincinnati under the direction of a full time executive secretary. Another step in centralization of IAPHC activities is the transfer of the Craftsmen's "Personal Library" to the headquarters city.

The International looks forward to a good year in 1948, with its "share your knowledge" ideal devoted to further development of a co-operative spirit, friendship, and mutual assistance among the clubs and their members, for the purpose of improving the industry, exchanging information, and passing on the knowledge so shared and gained to the younger generation in the craft.

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● The Lithographers National Association in 1948 will enlarge the scope of its existing program and adjust the emphasis where necessary to meet changing conditions, says George W. Hall, president.

Labor Relations Program

The association will further expand its program in the field of labor relations and will bring its entire program closer to individual members through sectional membership meetings as well as by an increased number of the individual member visitations.

A recently formed labor relations advisory committee will work very closely with the staff on the labor relations program to insure that it is properly attuned to membership requirements.

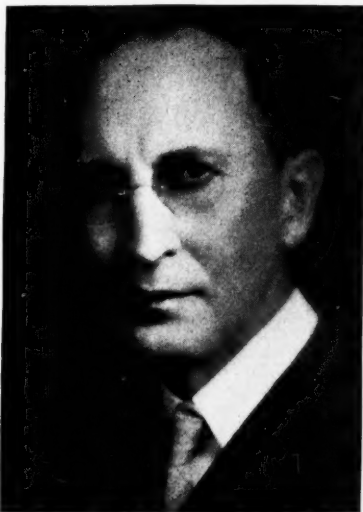
Objectives of the program are to assist members in developing sound labor policies of their own; to keep them informed on all factors involved in dealing with labor; to give firms in local areas, working together for their common good, full support and assistance; and to help firms in all areas co-operate more closely through the association for their own and the common good.

Services in the fields of costs and statistics will also be expanded, with publication of timely statistics on labor contracts, wage rates, costs of operation, and other data.

Additional tariff work will be necessary in 1948, because of the severe cuts in lithographic tariff rates in the recently announced reciprocal

trade agreements. The group has been active since 1908 in protecting the industry against inequalities in the tariff rates and classifications. Thousands of cases have been settled before reaching the courts, and of the 2,000 cases which were carried through the Customs Court, more than 90 per cent have been won for the industry.

A most important LNA target for 1948, says Mr. Hall, will be seeking relief for the industry "from the highly inequitable Federal excise tax on photographic apparatus and film. A presentation by LNA of the



George W. Hall, president, presents the goals for 1948 of Lithographers National Association

facts concerning the unfair and confiscatory impact of this levy on part of our tools of production and operation supplies has already been placed before the Senate and House Committees and has been made a part of the printed record of the hearings on excise taxes which were conducted last year."

Office Standardization

The LNA will continue its co-operation with the Department of Commerce in the promulgation or revision of simplified practice regulations affecting the lithographic industry, and is currently participating in a broad project of office standardization (the forms, paper, equipment, supplies) sponsored by American Standards Association.

Major activity of the educational department, in its long-established program of promotion of new and wider markets for lithography, will be aimed at reaching the thousands of new men and women who are entering the ranks of planners and buyers of printing, showing them

the application and advantages of using the lithographic process for much of their work.

This latter program has grown directly out of the customer field, and with LNA participation in interpreting lithographers' problems not only will the program on standardization be aided but the industry will also be protected against standards which might be wasteful in manufacturing operations.

Looking at the picture ahead, Mr. Hall believes that 1948 may well be a critical year of decision for lithographers. "With mounting costs already threatening to price some segments of the industry out of the market, with organized labor pressing for still shorter hours, higher wages, and the more costly 'fringe issues,' lithographic management may well be faced with the necessity for making decisions which will have an important impact on the long term prosperity of the industry and its employees.

Need Farsighted Judgment

"Never has there been a time when farsighted judgment, based upon a full knowledge of all the elements contributing to a prosperous growth of the industry, is more important. The LNA program is aimed primarily at supplying information, counsel, and advice to assist lithographic management in furthering the healthy growth of the industry and in maintaining lithography's position in the graphic arts."

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The major objective of the National Graphic Arts Education Association is to develop closer relations between education and the printing industry, says Fred J. Hartman, educational director. The program for the school year 1947-48 has been planned along three main avenues of service: for the administrators and the teachers of printing; for students of printing; and for the printing industry.

Featured under the first category will be several educational conferences, and a general information service via the association's three regular publications. The twenty-third annual conference on printing education will be held in New York in June.

NGAEA publications are *Graphic Arts Education*, the official quarterly magazine designed and printed as an educational project by students of the Department of Printing at Carnegie Institute of Technology; a *News Bulletin*, issued monthly dur-

ing the school year; and *Graphic Arts Summary*, a monthly review and check-list of leading articles in the trade journals.

Projects for students include three contests and promotion of several student organizations. The annual essay contest of the IPI, sponsored jointly with International Printing Ink, is now in its twelfth year. A student newspaper contest is conducted each year in co-operation with the Columbia Scholastic Press Association, Columbia University. A third student competition is the contest of Scholastic Awards, pro-



Fred J. Hartman, educational director of the National Graphic Arts Education Association

moted by the *Scholastic Magazine* under NGAEA sponsorship. Scrapbooks of the best printing done in high school printing departments are judged in the contest.

Student organizations which the NGAEA will continue to promote are the National Student Graphic Arts Society, International Junior Benjamin Franklin Society, and the Boy Scout Printing Merit Badge Movement.

The association's three-point program on behalf of the industry consists of promoting basic education and training through organized courses of study; teaching the appreciation of printing to future buyers and consumers of printed products; and promotion of Printing Education Week in January, which calls attention to the importance of printing in meeting the needs of business, education, government, and religion.

"As we face 1948 with such a comprehensive program," says Mr. Hartman, "we feel the next move is up to industry."

● The National Association of Photo-Lithographers will intensify and expand its services to meet the needs of a rapidly growing division of the graphic arts industry, reports Charles E. Mallet, president.

The association's cost-finding and other management services will be expanded, with the addition to the headquarters staff in New York of Emil A. Hilperts, C.P.A. Mr. Hilperts is to specialize in cost analyses and statistics of interest to lithographers, preparation and installation of cost systems, interpretation of tax regulations and



Charles E. Mallet is president of the National Association of Photo-Lithographers, New York

decisions, and research involving current problems in the field.

Also extended will be the association's labor relations counseling service, to help members solve the complex problems they encounter in that field.

In 1948 the NAPL will provide a business counseling service for the special benefit of newcomers to the industry, as new plants are opened and letterpress printers add offset to their facilities.

Looking toward closer co-operation of all branches of the industry on matters of broad common interest, NAPL will seek unification of the trade practices which have been developed by the various national trade associations.

This year will offer the graphic arts industry in general, and the lithographic industry in particular, countless opportunities for maximum volume of profitable business, Mr. Mallet believes.

Publishing and advertising, upon which printing and lithography are mainly dependent, will continue to

benefit greatly from the high levels of industrial production and employment. In the lithographic industry, volume of business during 1947 was without doubt the largest in its history, and volume in 1948 is expected to continue strong.

Thousands of printed forms hitherto done by letterpress are now being produced by offset. The process has made tremendous strides in the field of books, especially those requiring numerous illustrations, and offset is being utilized to a greater extent in the printing of catalogs where novel effects are desired.

While larger press units for multicolor production have accounted for a generous portion of lithographic volume, the increase in the amount of single-color "bread and butter" offset has been tremendous, with no decline in its upward trend.

Publishers in greater number are having their "out of print" books reproduced by lithography to save composition and plate costs, and preference will probably be given to offset for this purpose because of the marked economies effected.

Some Adverse Factors

There are some factors which may have an adverse effect on volume in 1948, Mr. Mallet cautions, such as high labor costs, which may go higher in the coming months, possible paper shortages, and the spectre of runaway inflation.

Inability of manufacturers to deliver equipment may also prevent full realization of potential volume. There is still a large backlog of bona-fide orders for presses and other equipment which cannot be delivered during 1948. While much of this equipment was intended to replace obsolete or worn-out machinery, the greater portion of new equipment orders was placed in anticipation of expanded production schedules.

These obstacles, however, are not so serious that they cannot be overcome in turning out the additional volume, Mr. Mallet concludes.

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● The International Typographical Composition Association has set a ten-point goal of achievement for 1948. As outlined by Oscar Hoffman, president, these ten activities are:

1. Conduct a special campaign to induce the members to install and operate adequate bookkeeping and accounting as part of the regular business routine.

2. Promote installation of the ITCA simplified cost-finding system in member plants, to help them de-

termine proper selling costs for profitable operation.

3. Urge rigid observance of the association's code of ethics during the year, when competition in the composition business is expected to be more active than in the past three or four years.

4. Promote the observance of the association's recently revised and enlarged standard trade customs and practices, which govern fundamentals of measuring and estimating composition.

5. Perfecting and distributing the ITCA's recently approved "Guide for



Oscar Hoffman, president, tells plans of international Typographical Composition Association

Estimating Hand-Set and Machine Composition."

6. Compile a "Production Manual for the Composition Business."

7. Seek the membership approval of and establish a type specimen library, using a card index system instead of the traditional specimen book for showing type faces available in each member plant.

8. Continue to assist members and local and area organizations by stimulating co-operative efforts of all kinds.

9. Promote exchange of ideas and information through a series of regional meetings, to include an Eastern conference in New York in April, as well as at the annual convention in Minneapolis in September. The ITCA will help the Typographers Association of Southern New England when it celebrates its twentieth anniversary in New Haven in June.

10. Continue and broaden the scope of informational and management services which are being provided by International headquarters in Philadelphia.

● The American Photo-Engravers Association, alert to the changing requirements of the buyer and user of photoengravings, will direct its principal efforts toward the coordination and solution of problems which confront all photoengravers, says Frank J. Schreiber, executive secretary. The association is composed of 600 firms in the industry.

The national association, by furnishing ideas and material for educational programs, will endeavor to strengthen the local and sectional organizations, some of which are more than fifty years old.



Frank J. Schreiber, executive secretary of American Photo-Engravers Association, tells of plans

With the establishment of new firms, APEA educational and management services are in greater demand than ever. These include a standard cost system, a standard accounting system, standard scales, and "The Standard Scale in Theory and Practice" text on estimating.

A continuous share-your-knowledge program is carried on by dissemination of technical data in the *Photo-Engravers Bulletin*, official monthly publication. The *Bulletin* serves as a basis upon which local associations are forming technical societies and from which they select discussion subjects.

Co-operative research is supported by a group of representative firms organized as Photo-Engravers Research, Incorporated, working with the Battelle Memorial Institute. The research group as an organization is separate from the association.

Early in 1948 Louis M. Flader, who retired on December 31 after thirty-five years as commissioner of the association, and J. S. Mertle, photo-mechanical authority, will

publish a handbook on photoengraving which will serve the industry as a technical manual. Mr. Schreiber, who has been secretary of the Chicago Photo-Engravers Association for thirteen years, has succeeded Mr. Flader as executive secretary of APEA.

Contributions to the industry's progress will also be made by the associations in the equipment and supplies branches.

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● While it has no detailed program worked out for 1948, the National Printing Equipment Association will continue its policy of evaluating and supporting all those movements in the graphic arts industry which it believes have merit, says R. V. Mitchell, president. The association also assists its members in determining when it is most suitable that exhibitions of graphic arts machinery should be held.

Most of the equipment manufacturing companies are represented by individual, direct membership in the national printing and lithographic trade associations, as well as in local and regional associations. By this means they contribute both money and personal



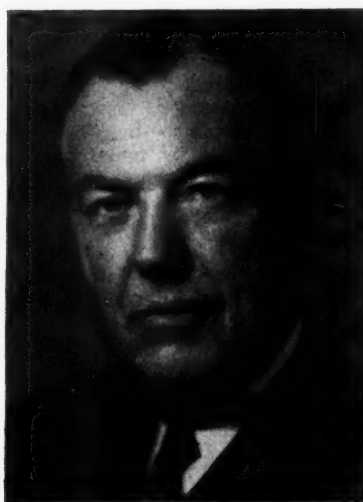
R. V. Mitchell, head of National Printing Equipment Association, keeps in touch with trends

effort to the educational, research, and other activities of these groups.

The National Printing Equipment Association keeps in close touch with national and political trends that concern the industry by membership in the National Association of Manufacturers and the United States Chamber of Commerce, and its work in this direction is handled through these larger organizations.

● National Association of Printing Ink Makers will vigorously promote the use of more color in printing in 1948. C. W. Reed, president, says the association "thinks that it is time for all industries and trade associations to plan activities on the assumption that business will have to be sought in 1948 rather than have it served on a silver platter as most industries have had it for the past four or five years.

"To that end the association will engage in a publicity promotion campaign to increase the use of color in printing and lithography.



C. W. Reed, head of National Association of Printing Ink Makers, which will promote color

The campaign will tend to increase volume at the point of sale and lend a more cheerful and alluring appearance to commodities aided in sales by the graphic arts. While it is appreciated that color in plastics and toys and in toilet goods has been advocated long before this, the printing ink manufacturer feels that it is time he took a hand in helping the color movement along."

The ink association will continue to see to it that the industry gets its share of scarce materials used in the manufacture of ink, as it did during the war, when it had a difficult job convincing governmental departments of the importance of printing ink and the graphic arts. Some materials are scarcer today than they were then, and it is possible that the Marshall Plan might even further decrease the supply of chemicals, dyes, and colors.

The search for new materials to replace scarce ones or to improve upon those presently used will be continued in 1948 as a part of the industry's research program.



—These are the departments discussed in this third installment of

Composing Room Layout

By M. E. POWERS

● WHILE it naturally follows that the groups for the locking up of press chases will follow the makeup groups, several other factors should be considered in the layout of lockup. First, perhaps, is the desirability of cutting down the movement of the heavy chases from imposing top to pressroom to the minimum. In any multi-story building, this would be from the imposing top to the elevator.

The second factor is the problem of page storage, pages that are waiting for lockup and pages that are to be stored from dead forms. Much of the success of the final layout will depend upon the balance of the storage facilities and providing enough capacity at the several points to properly handle the flow of work. Travel in all cases should be kept at a minimum for there is considerable carrying of the heavy materials in this department.

There are three kinds of lockup in most composing rooms—that for the platens and small automatic presses, for cylinder presses, and the lockup of type matter for sending to an electrotype foundry. Each of these lockups calls for special materials and a special grouping of the equipment if the operation is to be properly performed.

Lockup for press combines not only the requirements for presswork but often includes the minor corrections in the justification of type matter. So the lockup man must therefore have available the chases, the quoins, furniture, and other materials that are used in the lockup of press chases and in addition must also be supplied with leads, slugs and other spacing materials. It costs less to make these minor corrections in lockup than to return the type to the makeup department.

To illustrate the needs of lockup, the steps in the development of a lockup center for small automatic presses may be followed by refer-

ence to Figures 1, 2, 3, and 4. The first sketch shows a furniture cabinet on top of an iron imposing table with galley storage in the frame. This arrangement does not provide

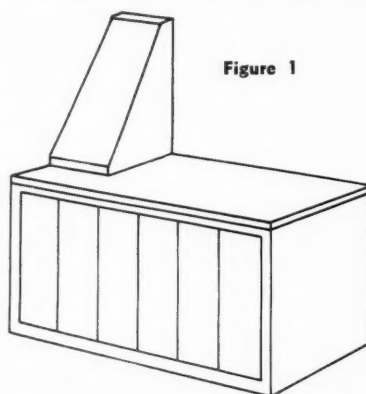


Figure 1

the necessary materials and wastes valuable working space on the imposing top. Figure 2 shows the furniture cabinet moved to a special table cabinet at the end of the imposing table and the possible sup-

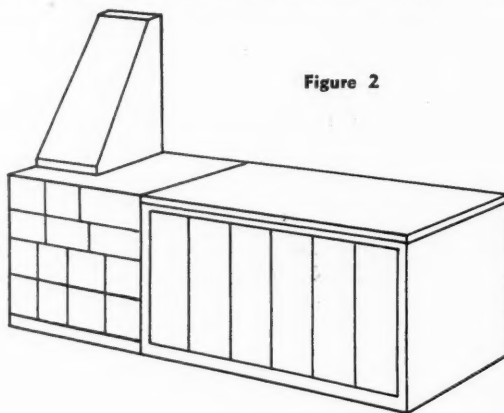


Figure 2

ply of some of the materials that will be needed. The change is still short of the objective.

Figure 3 shows the imposing table backed up with a special stand designed to make available all of the materials that may be required by the lockup man. It is actually a

work bench. Figure 4 shows a chase rack added, which makes the lockup group for small presses a complete production group. Notice that the chase rack is two high, with the upper deck for forms ready for the press and used in some plants as a part of a production control plan, and the lower deck for dead forms.

Cylinder lockup requires a different arrangement. The chases are larger and the chase rack must not only be convenient to the imposing tops but with enough space in front that the chases can be easily moved in and out of the rack. If the plant uses transfer trucks for handling the larger forms, this will indicate the minimum space between imposing tops if the forms are to slide from top to truck. Again, the racks may be designed to take the chases directly from the transfer truck, which will not only raise the base of the rack but will probably increase its depth and the need for a larger allowance of space in front of the rack for the movement of the truck. A box rack for chase crossbars should be adjacent to the chase rack. And floor space should be allotted for transfer trucks not in use.

The furniture may be in a large cabinet or in sections in the base of the imposing tables. A plant doing publication printing may need large quantities of special sizes of wood furniture, and bins must be supplied for this storage. Provision may likewise be necessary for the storage of giant iron furniture and possibly two kinds of patent base and the hooks and parts which are necessary in making a patent base assembly.

It is good practice to furnish the cylinder lockup group with a saw, a slug cutter, and hand miter, for the lockup man for large chases must also be equipped to make the minor adjustments in the type pages if justification has not been well done. Many plants provide a

supply of full length wood furniture of various widths to be sawed as needed. And then there are small miscellaneous materials such as the string, chalk, and so on, that will require a drawer.

To meet the need for all this material for cylinder lockup, it is desirable to design a special cabinet unit having the facilities for proper storage of all materials and to place this unit so that it may be easily reached from any of the large imposing tops.

In making the layout of the cylinder lockup, as well as that for the small presses, consideration should be given to the possible placing of storage cabinets in an adjacent area for pages that are to be stored. A large part of the efficiency of the imposing operation may be measured by the ease with which forms can be broken up, the pages stored in cabinets, and all of the materials of the lockup operation immediately returned to their proper places.

The lockup of forms for foundry is usually a lockup of pages. The items which must be provided in the layout group are an iron top imposing table, a chase rack for foundry chases, floor space for a possible chase truck, furniture, bearer bars, and a bin for empty galleys for the storage of the type after return of the form from the foundry.

It may be necessary to add a proof press to the group if the plant policy is to proof all foundry forms, or to place the foundry lockup group near one of the larger proof presses of the composing room. Foundry lockup should be kept separate and distinct in its grouping from the cylinder lockup.

Groupings for lockup, whether for small automatic presses, for cylinder chases, or for the foundry lockup, like the makeup groupings, should be tailor-made to fit the particular needs of a plant and to conform to and to supplement the plan of production that has been selected. It is obvious that to attain the desired objectives in laying out a lockup group, considerable time must be spent in the study of the movements and methods. Pay particular attention to any special operations that have been adopted by the plant to handle certain classes of work.

The location of the register table will depend largely upon the assignment of work in the plant. In

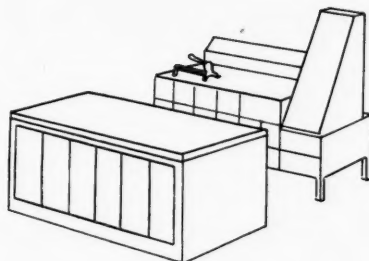


Figure 3

the smaller plants it is customary for the composing room foreman to check the press sheets and to okay the sheets for press running. The register table, therefore, should be in a position convenient to the desk of the foreman.

In the larger plants where there are a number of cylinder presses and a comparatively large number of press sheets to check for proper lineup, some one man is assigned to the work of lineup, usually a man who has had considerable experi-

checked and the press sheet can be handled when the job reaches the bindery.)

There are two other considerations in the placing of the register table. One is that if the lights below the glass top are to reveal the pencil lines in sharp relief, the area around the register table should be in subdued light or where the ceiling lights can be controlled by the lineup man, otherwise much of the value of the glass top will be lost. The second consideration is supplying a table the lineup man can use for the press sheets that may have to await their turn on the register table, one that has shelves for the flat storage of full press sheets. This is especially desirable where multiple forms are to be checked for register with a master sheet. Press sheets and the master sheet must always be kept flat in order to maintain accuracy.

Working space should be provided at the front and right end of the register table where sheets are small and the lineup man is able to easily reach the back of the sheet and to all four sides where large press sheets are to be handled. Note also in Figure 5 that a box for the job tickets has been provided for use of the lineup man.

The floor space required for the cut handling in a composing

room will vary according to the size of plant, the character of the printing product, and the policy of the company in regard to the return of cuts to the customer.

The term "cut handling" includes receiving cuts and inspection for damage, the proofing for identification, the delivery of the cuts to the composing room for current jobs, proofing for storage records, and, in many cases, the proofing of the receipts as the cuts are returned to the customer. Note that the proof press is the key to the whole operation and to this press we add the tables, files, and the storage units that are necessary.

Note in Figure 6 that there is a table about nine feet long for the handling of cuts, a large barrel for waste wrappings, a proof press, files for the record sheets and receipts, and a drawer section for the temporary storage of cuts for current jobs. The table should also be fitted for wrapping cuts for shipping.

In general, the storage of cuts utilizes one of five types of units.

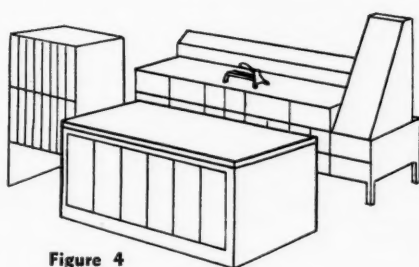


Figure 4

To include:
Wood furniture
Bins of wood
furniture
Patent base
Quoins
Leads and slugs
Slug cutter
Miter
Spaces
Reglets
Chases
Empty galleys
Galley storage
Waste metal

ence in the lockup of forms. In these plants it is also the practice that the press sheet shall carry the initials of the proofreader before the pressman is authorized to proceed with the press run. In this case the register table should be convenient to the pressroom as well as the proofroom and is usually placed in the area of large imposing tables where cylinder chases are locked up. (It might be mentioned, even though it has no bearing on the location of the register table, that good practice also includes the initialing of the press sheet by the bindery foreman as evidence that the imposition of the form has been

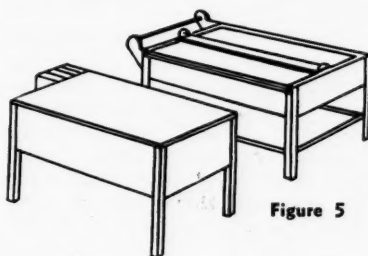


Figure 5

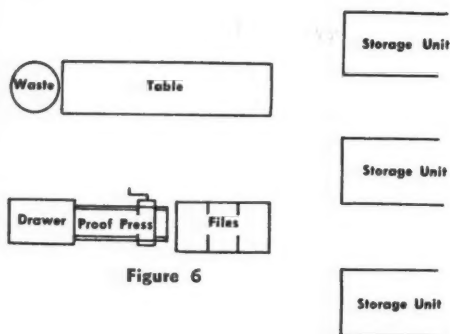


Figure 6

The type selected for any one plant will depend upon the plan of filing that is used, the range of sizes of the cuts, and the quantity of unmounted cuts that are to be stored. Actually, the storage units of a plant may be the discarded drawer units of the composing room, shelving accumulated from numerous sources, and other odd items. Where this is true, the only thing that can be done is to make templets for all of the units and attempt to arrange

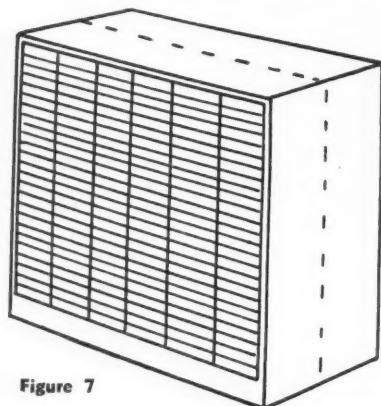


Figure 7

them in an orderly pattern. Use of old cabinets is very expensive compared with what can be accomplished with proper storage units.

Briefly, the five generally used storage units are as follows:

1. Special steel units for the storage of steel trays approximately 12 by 18. The unit is open on two sides and stands about eight feet high. Capacity about 720 trays. Twelve by 18 galleys can also be used. See Figure 7.
2. A cabinet of wood for the storage of either trays or 12 by 18 galleys. Capacity of about 600. See Figure 8.
3. A series of steel shelving sections with the cuts placed in special numbered chipboard boxes and stored on the edge. Shelves are usually 18 inches deep and 36 or 42 inches long. See Figure 9.

4. The use of wooden or steel shelving sections for the storing of the cuts wrapped in bundles, each bundle marked with the job number. See Figure 10.

5. The use of drawer sections with drawers similar in size to type cases. Many such drawer units are converted type cabinets. See Figure 11.

Each of these types has its advantages and disadvantages. The first special unit is high in cost but very efficient in storage capacity. The second cabinet of wood may be a little lower in first cost and the capacity is less.

The third plan of using chipboard boxes and steel shelving offers a flexible plan of storage that can be

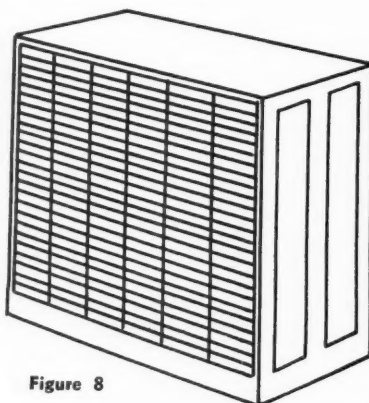


Figure 8

easily added to, and for the layout man, units that can be fitted into the tight corners and around posts. Some of the boxes may be damaged from time to time but the cost of replacement is low.

The fourth plan of bundles on wooden or steel shelving keeps the cuts of any one job together, but presents a problem when there is a request for one or two cuts out of the bundle. Bundling is not efficient in the use of shelf space and generally shows disorder. The plan does have the advantage that the unmounted cuts can be packaged and placed on the shelves. It is well to remember it does not take many packages of electrotypes to make the storage unit exceed the floor load limit of the room.

The use of drawers of type case size has the advantage that if the records fail to locate a cut it is possible to open drawer after drawer until the cut can be found. These drawers are heavy and the whole unit soon reflects the heavy loading and the drying out of the wood. Also, the aisle space must be in-

creased for the drawer opening and for the possible use of steps to be able to reach the upper drawers of the unit.

For a comparison of the storage units used in the five plans as measured by the capacity of the units in square inches of the cuts per square foot of floor space, the weight of the filled units in pounds per square foot of floor space, and the number of square inches that may be stored per square foot of floor space, see Table A.

The layout for handling of cuts should plan for the housekeeping

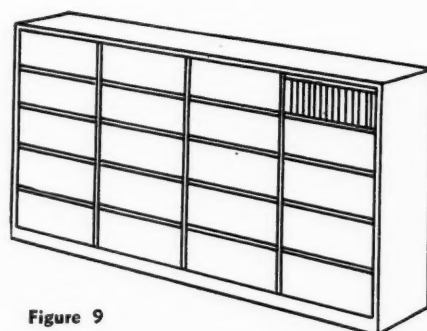


Figure 9

that is necessary if this operation is to be clean and well ordered. There should be some provision for future additional storage. Extra files should be provided for when making a new layout and some additional table space may also be found desirable.

Many plants add cut underlay to the cut room operation, generally with inadequate equipment. If this operation is to be a part of the composing room, then there should be floor space provided for a long specially built table for working space, a surface plate, a drill, a jig, a saw, and a block leveler. On another table should be the gauge and the materials for underlay. This is in addition to the floor space for

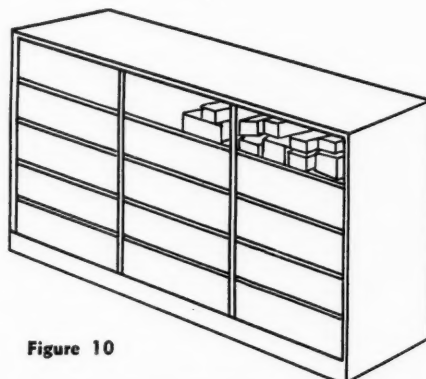


Figure 10

PLAN	Capacity per unit Square inches of cuts	Weight of filled unit per square foot of floor space	Square inches of cuts per square foot of floor space
Plan 1. Special steel unit	155,520	197 lbs.	3880
Plan 2. Wooden cabinet	129,600	182	3500
Plan 3. Paper boxes on steel shelves per section	35,640	205	3950
Plan 4. Drawer section	82,800	126	2250
Plan 5. Bundles on shelves including portion of unmounted plates	29,700	240	3300

Table A

cut handling even though the same man may be engaged in both of these activities.

The recording of the new layout on paper requires that there be a scaled plan of the floor to be occupied by the composing room. It is better if the room be measured in detail rather than attempt to follow a blueprint furnished by the architect or the building manager. The blueprint may not be the final print used by the contractor and there may have been changes made in the building since it was made. Especially is it possible that there are some pipes or radiators which were not in the original building.

In measuring the building every detail must be accurately located—the radiators, the doorways, all of the riser pipes, irregularities in the building walls, partitions that are to be a part of the new layout, boxes for electrical distribution, and any other items that might interfere with the placing of equipment. The scale used for the floor plan is usually one quarter of an inch per foot, a convenient scale and sufficiently large to insure reasonable accuracy in the drawing.

The drawing of the floor plan and the location of all possible obstructions to the placing of equipment made on tracing paper will permit making a number of blueprints that can be used in the arrangement of a series of possible layouts of the composing room. With each new layout will come new suggestions of what might be done and when there are enough suggestions of merit to warrant, another layout can be made. There should be no attempt made to limit the number of layouts so long as the suggestions are constructive.

Each layout should be recorded by placing a sheet over the templates and tracing through the outlines

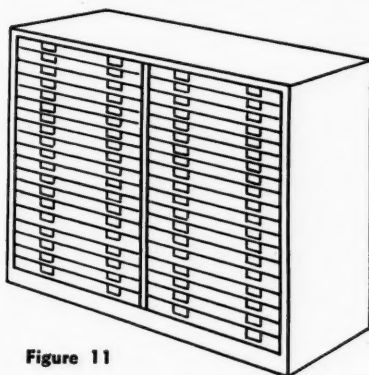


Figure 11

showing positions. It will be found helpful to have a record of the steps in layout for comparison pur-

poses and for incorporating the best of each layout in the final arrangement.

The study that has been made of the plant, the new equipment that is to be added, the increase in the capacity that is to be provided, and the use of productive groups provides a listing of the items that are to be shown in the layout. A templet of each of the items is made at the scale of one quarter of an inch per foot, possibly upon heavy manila, the templet to show the machine and the cabinet and not the working space surrounding. The templates are then moved into approximate position in order that the problems of the layout may be revealed.

Some find it desirable to move the production groups into their correct positions without regard to the building limitations—again the dream of the ideal plant—and then study to see what minor changes can be made to accommodate the building columns and other limitations. It is surprising how often the ideal layout can be carried out, assuming that the space is adequate for the housing of the composing room. It is a mistake to crowd a plant into cramped quarters and then be penalized for years to come for the faulty move. The modern trend is to secure sufficient space so that an orderly layout can be achieved, one sufficiently "fluid" that it will permit expansion and changes which will help to keep the plant in a good competitive position.

The purpose of the templates is to represent the items of the composing room in scale as to size and

DESCRIPTION OF MOVE	PRESENT PLANT			PROPOSED PLANT	
	Feet per move	Moves per shift	Travel feet	Feet per move	Travel feet
Copy, foreman to makeup.....	32	52	1664	22 —	1144
Makeup to proof press.....	18	71	1278	12 —	852
Proof press to proofreader.....	26	64	1664	22 +	1408
Makeup to saw.....	16	64	1024	5 —	310
Proof press to page storage.....	6	80	480	7	560
Page storage to imposition.....	15	20	300	17 +	340
Foreman to proofroom.....	24	22	528	18 —	396
Foreman to cut room.....	30	12	360	25 —	300
Foreman to machine dump.....	16	20	320	14 —	280
Machine dump to makeup.....	24	40	960	18 —	720
			8578	6310	
Indicated saving: 2268 feet—26.5%					

Table B

Method of checking a composing room layout on basis of feet of travel

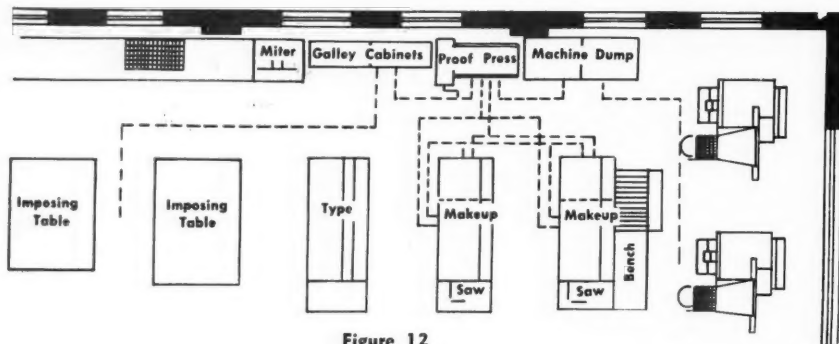


Figure 12

by label for identification. It will aid identification if the templet shows some of the details of the machine or cabinet to indicate the facing of the operator, the position of the cabinet, the open side of the cabinet, and a notation as to the height. It will also be helpful later when time comes for moving the plant into the new arrangement to number the items in the composing room and a corresponding number on the templet. It is also well to show by color the new equipment that is to be installed and to list at one edge of the drawing all of the items that are to be replaced.

Three dimensional templets are used in many industries in working out the details of complicated layouts and for layouts that will be changed at frequent intervals. The templets are for the most part

blocks of wood with labels for identification. The templets may be accurately made so that identification is easy. But detailed templets are costly and for the printer, the probable one-time use that he will make of them, the expense may be out of proportion to their value.

In many cases the actual layout is made by the paper templets and the three-dimensional templets are placed later to show a view of the plant in miniature.

Paper templets serve to space the machines and to make the proper groupings within the plant to scale and on a tracing that can be blue-printed. These blueprints can be used by the plant and the various contractors that may be called in to do work. All of these men require accurate dimensioned drawings to do the work, to order materials, and to make their estimates.

The detailed drawing from paper templets should be the basis of the layout. This can be complemented by more detailed templets of wood or other material if it is desired to carry the layout to the view of the miniature plant stage.

The men of the organization who have had a part in making the new layout are interested in any measurement showing a comparison of the proposed layout with the layout of the present plant. And they would like to know the degree of improvement in the rearrangement and to be warned of any changes that are not promising and should receive further consideration. This comparison can be made on the basis of feet of travel for a series of the repetitive movements in the composing room.

Travel Lines Serve as Check

The feet-of-travel check has been shown in Table B. Ten repetitive movements within the composing room are measured in feet, then the number of complete trips made during a shift is estimated, and the resulting total of travel feet for the shift is compared with a similar measurement made of the present plant layout.

Another method of checking a layout is to draw in the travel lines on a print of the final layout. These lines will reveal definitely any backtracking of the flow of work and will occasionally suggest where minor adjustments in the layout would be an improvement. Both checks on the layout are comparatively easy to make and it is always a cause for satisfaction to know that the new layout of the composing room has been well done.

To illustrate: The travel lines of a small commercial plant are shown in Figure 12. From a study of the lines it is apparent that there is little lost motion in the movement of the type from machine dump to makeup and to lockup. The lines also show a point of greatest traffic that will require a wide aisle.

The travel lines of a medium sized commercial plant are shown in Figure 13. Note the direct flow of work in this plant.

In Figure 14 the flow in a publication plant is shown from machine dump to imposition. There is a possibility in this layout, made apparent after the flow lines have been drawn in, that the makeup units might be turned so that both makeup positions could use the same saw and proof press. Building columns are still to be considered in this case.

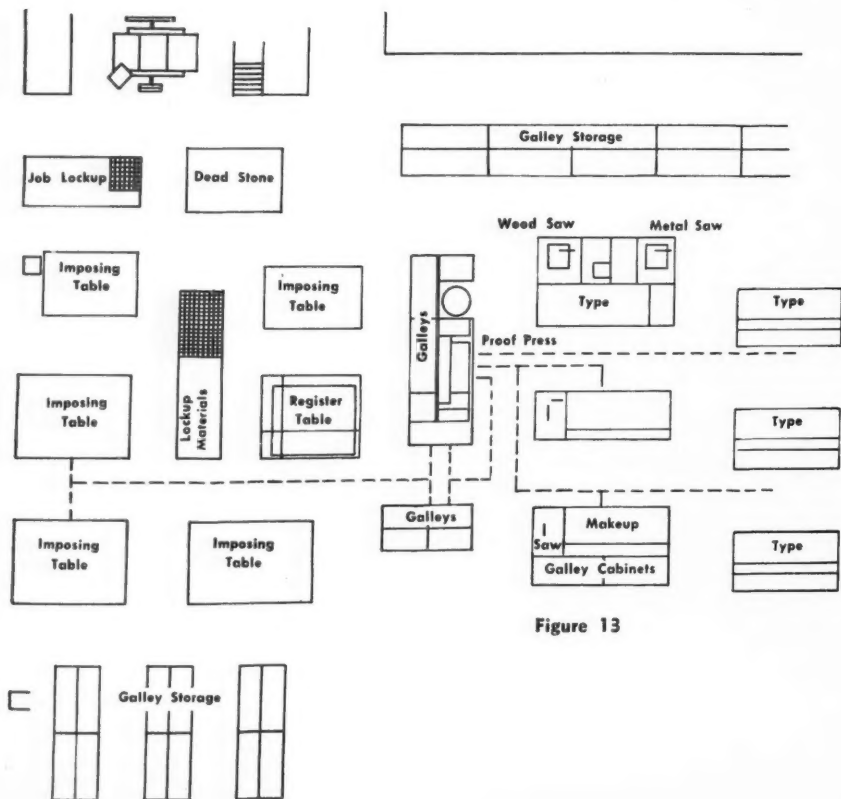


Figure 13

The final layout of the composing room should be based upon a thorough analysis of the movements of materials in the composing room, of the motions of men, and of the methods used. The layout should complement the plan of production

layout should be guided not only by analysis of the production records but by trained observation of the composing room in operation. The trained observer, preferably having an engineering approach to problems, will see many things that in-

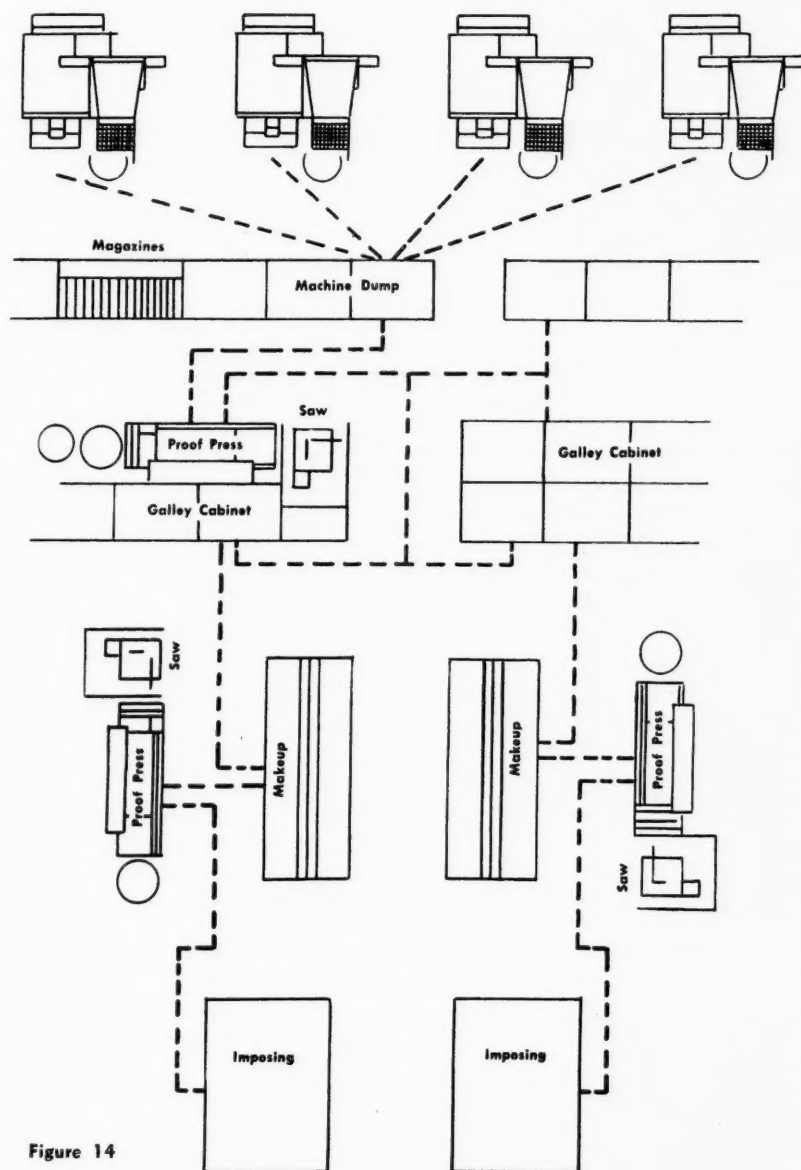


Figure 14

and the arrangement of the various units of production should be made with this objective in mind. Standard units should be used as far as practical in carrying out the plan but when specialized composition requires some departure from the standard grouping of equipment there should be no hesitation in providing such special cabinets or machines as will insure minimum costs and improved production. The

vite study and questioning, and he can make prompt and numerous suggestions aimed at the elimination of waste motion.

The composing room is complicated in its workings and detailed in its need for supervision. Planning for the ideal composing room takes time, but the effort is well worth while in the development of a composing room that will be profitable in operation.

Dunning Letter—Colonial Style

In 1672 Samuel Green, the famous printer of the Indian Bible, was greatly gratified to be selected as the man to produce the first code of laws for Connecticut. The job was done; presumably it was well done, at least for those early days when clear-cut types and adequate equipment were hard to get.

Mr. Green, having delivered the work, thereupon began to discover what many contemporary printers have likewise discovered — that working for the government has its disadvantages. Two years after the job was finished, Samuel was still yearning for his money.

Having exhausted his stock of hints in the high places, there was nothing left to do except to dun the governor, John Winthrop, Jr., no less a person than the son of the great John Winthrop of Massachusetts Bay Colony. His letter, a masterpiece of delicate understatement, is extant. It sounds a bit servile, even craven; but you have to remember that the Colonial printers were dependent for their bread on the good opinion of the higher-ups. This is what he took pen in hand and wrote:

"Right Worthy and Much Honoured Sir:—the occasion of my boldnes att this time (for which I crave excuse) is, after my humble service to your worship, and due acknowledgment of all favours received from your worthy selfe and yours to my selfe and mine, onely thus much—that I hope there hath been some measure of satisfaction given by us to your worships and the rest of your Colony in the printing of your lawes and delivering of them. Whereas we doe find something a slownes, att least by some, in returning satisfaction to us for our labour and charge, wherein we owe out neer twenty pounds in money for paper, besides all other charges and labour.

"I only make bold with your worship, hoping you will not be offended with your poor servant for his boldnes, if it please your worship to influence those it may concern that there may be some course taken for sattisfaction according to agreement, and we shall take it as a great favour from your worship.

"Honoured Sir, I humbly crave pardon for my boldnes to your worship: presenting my service, in-treating the Lord's presence with you, I take leave and remain,

Sir, your Worship's humble servt:
Samuel Green, Sen'r."



Impressive lobby of new plant of Warwick Typographers, Incorporated, in St. Louis. Open door is the entrance to the shop. Door at extreme right opens into the reception room. Large showcase on the left effectively displays samples of the type of work that is done there



A view of the reception room at Warwick as it appears from the lobby and elevator, framed by the alphabet used as a frieze, which furnishes an attractive and appropriate decorative touch to the otherwise effectively simple lobby. Private offices are in rear



A general view of the spacious, well-lighted shop. The entrance to the Monotype room may be seen at the end of six-foot-wide aisle. Efficiency of layout was guaranteed by preliminary time and measurement study. Men travel less though the plant is twice size of old one

Warwick

★ St. Louis typographers celebrate 25 years growth by moving into enlarged, streamlined plant... *By Don O. Pyke*

● WHILE Warwick Typographers' sales area is unlimited, an order moves through their new St. Louis plant with the speed and dispatch of a transcontinental limited.

The precision that characterizes the operation of this ultra progressive plant is best exemplified in the recent transfer of equipment from the old plant to the new. A rush job was completed in their old plant at midnight Friday. At 8:00 A.M. the following Monday, Warwick was in complete operation in the new plant. Not one minute was lost in production. Not one customer knew of the move until that Monday morning when announcements were on the desks of customers and prospects.

This magic carpet feat was accomplished by adroit planning, the type of planning that has produced one of the outstanding typographic plants in the country.

All the planning was done by the officials of Warwick. Each piece of equipment was measured, department by department. Pencil sketches were then made allotting space for each department, allowing for the increased space in the new plant. Templates of every piece of equipment were made and the difficult job of placement started.

Not One Productive Minute Lost

This process required six weeks of day and night work. Managers of all departments were consulted and revisions were made. At this point Warwick called in outside help, a firm of industrial engineers, to translate their layout to accurate measurements and subsequent finished blueprints.

Two weeks before Warwick emulated the Arabs, they moved less vital material to the new plant. The old plant was run in high gear until midnight Friday. Then Warwick folded its tent.

By the following Monday morning all type machines were in the new plant and were turning out jobs. Books had been printed showing the exact location of every case of type. These books were on the frame of every employee that Monday morning. No one was compelled to ask or search for anything. There was no confusion. There was not a single productive minute lost!

Before the layout and operation of Warwick's new plant are spread before your eyes, you'd like to know something of the background of the man who has made this organization click. Okay, we'll run through the biography quickly.

Twenty-five years ago, Hubert J. Echele, with several years as a printer and commercial artist behind him, was holding down the production manager's chair in a St. Louis advertising agency. He saw a need for an artistic typographer so in August, 1922,

THE INLAND PRINTER for January, 1948

Warwick Unlimited

he started in this business. "Warwick Typographers" was selected as the firm's name because it looked good in type. As a logical development, Echele was elected president. He has held that position ever since.

A few months later, John Lamoureux joined Warwick. His experience also encompassed commercial art and printing. Later Lamoureux was made vice-president and he, too, has remained in that office ever since.

Both Echele and Lamoureux have been active in business, civic, and cultural organizations. They have been officers in many of them. Both are as well known as any two business men in St. Louis. The organization has taken on a triple personality, or what the Viennese psychologists call schizoids: Hube, John, and Warwick (quality typography).

New Plant Located in Heart of St. Louis

To this multiple-personality firm was added, in 1944, a sales manager, John J. Connery, Jr. Connery came to Warwick with many rich years of advertising, sales promotion, and selling experience. Incidentally, he had been a customer of Warwick since their initial year in 1922.

Now let's actually visit their plant. It is located in the heart of St. Louis. You can walk up one flight of stairs or take the spacious elevator. The entrance or lobby is spectacular. One door opens into the shop. Another door opens into the reception room. Topping the walls, as a sort of border, the alphabet is lettered. Actual samples of Warwick's latest work catch the eye in nine display cases.

From the reception room extends the conference room, the general office, and the private offices of Mr. Echele and Mr. Lamoureux. Custom-built office furniture, particularly adapted to typography, adds not only utility value but decoration as well.

The new plant, approximately two and one-fourth times the size of the old plant, contains 11,000 square feet of floor space. Every square foot plays a vital role in plant efficiency.

Made Time and Measurement Study

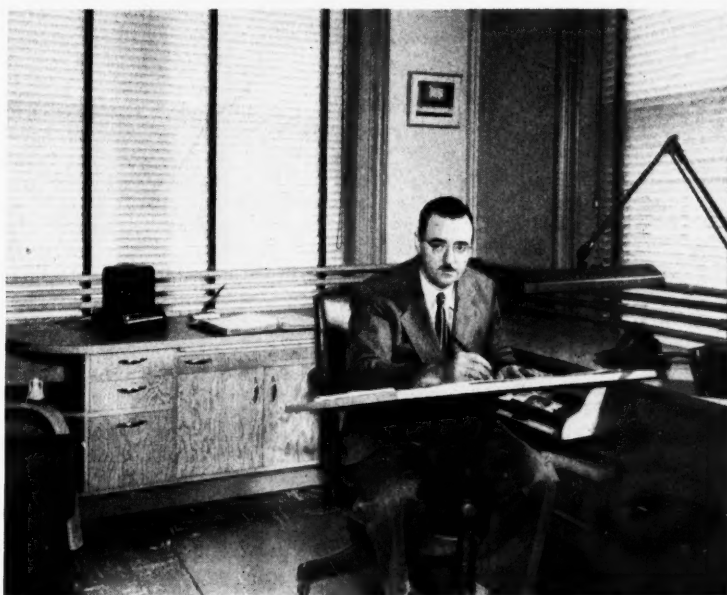
The plant extends from Washington Avenue to St. Charles Street—one block long. The entrance is on Washington Avenue, one of the most important traffic arteries in St. Louis. The delivery entrance is on St. Charles Street. The passenger elevator is on Washington, and a large freight elevator is on St. Charles. It is ideal for receiving and delivery.

Before moving into the new plant, Echele made a minute time and measurement study of the distance traveled by his compositors. He measured the distance in the old location from a man's working frame to other frames with popular type faces. In addition he measured the distance to the saw, spacing materials, and from a man's frame to the foreman's desk.

The results of these studies enabled Echele to arrange his new plant so that his floor men had less distance to travel, even though his new plant is more than twice the size of his former plant. This



Pictured at his desk is Hubert J. Echele, president of Warwick Typographers. A printer and commercial artist, twenty-five years ago he saw the need for an artistic typographer in St. Louis and started the typographic organization which has been thriving ever since then



Vice-president John Lamoureux also had experience in commercial art and printing. Like Echele, he is active in business, civic, and cultural organizations, having been an officer in a number of them. Mr. Lamoureux is shown in his new office with custom-built furniture



Opening off the reception room is the comfortable conference room. The walls are attractively paneled in blond oak, as are all walls throughout the office, metal being used for the partitions. Fluorescent lighting has been installed throughout the building

element of increasing the efficiency by time-saving arrangements was paramount in the new plant.

For example, one of the most outstanding features of the new layout is a six-foot aisle running through the center of the plant. This painted aisle separates the active and inactive parts of the plant.

On the active side are the shop foreman, assistant foreman, all the hand compositors, the Ludlow department, the Linotype department, proof presses for first proofs, and galley cabinets for live jobs.

When a job is okayed for reproduction proofs, for foundry lock-up, or is to be sent out to the printer, it crosses the aisle. Here it remains for break-up, if it is reproduction proofs; or for later break-up when returned by the foundry or the printer. To paraphrase a radio slogan, "no other typography plant can make this statement."

Handy Traffic Department

Another new feature is a traffic department where all jobs are received and sent out. When a small or simple job is received, the traffic department dispatches it immediately to the plant foreman. After it is set it is returned to the traffic department for delivery.

Large jobs are sent by the traffic department into the office for lay-out and markup. From the office the jobs are then sent to the Linotype or Monotype departments for machine setting. From there the job is turned over to the next department for the hand composition and make-up.

This traffic department is situated directly back of the main front lobby. Adjacent to this room is one that is humorously called the "Board of Directors" room. Here, the errand boys and men are poised for flight, either to pick up jobs, deliver proofs, or carry Warwick's new type catalog to customers and prospects.

When a call comes to anyone in the office requesting a messenger, the traffic department is contacted over the intercommunication system. The traffic department dispatches the messenger. When he returns, a job ticket is immediately time-stamped. Hence any employee wanting to know anything about the out-going proofs or jobs merely consults the traffic department. It is the source of all information on all jobs. This department, the nerve center of the plant, centralizes all miscellaneous activities by all of the employees. Confusion and misunderstanding are at a minimum.

Directly across from the traffic department are the reproduction proof presses and the proof driers. These driers have doors adjacent to the presses, and other doors adjacent to the traffic department, thus facilitating proof handling.

Add Much New Equipment

Much new equipment has also been purchased and is installed in Warwick. This included type cabinets, saws, monotype compressors, office furniture, lockers, shower and bathroom fixtures.

The intercommunication system literally covers every portion of the office and plant. This system not only increases efficiency but saves many steps.

Fluorescent lighting has been installed throughout the plant and office. The walls of the Monotype room and throughout the office are blond oak with metal partitions.

Warwick has twice staged "open house." The first, a cocktail party and buffet supper, was for all employees and their families. The wives were escorted through the office and plant. Delicious food was served. Employee relations at best!

Then the following week came the flood. Invitations were sent to printers, the advertising agencies,

advertising managers, and printing buyers. Over five hundred invitations were sent out. Over five hundred guests attended. The friends of twenty-five years had literally ganged up on Hube, John, and Warwick. Each one had an opportunity to inspect the company's equipment in motion. And each one played a dual role, that of serious minded advertiser, and that of the well-wisher bent on social visiting. It was one of the largest gatherings of graphic arts people ever held in St. Louis.

In 1922 Warwick sales territory was confined to the printing and the advertising agency area of St. Louis. It could have been measured by city blocks.

Unlimited Sales Area

Twenty-five years later they have expanded to Warwick Typographers "Unlimited." Hube Echele has a huge sales map over his desk with red, white, and blue pins protruding in cities from New York City to Denver, and from Chicago to Birmingham, New Orleans, and to El Paso! Each number designated the number of the active customers in those cities, and each day new pins are added. Truly, Warwick's sales area is unlimited.

Who's A Salesman?

By HAROLD J. ASHE

WHILE successful sales executives may be reluctant to define what constitutes a salesman, the Federal Government seems to have no such reticence. So now, for what it is worth, employers of salesmen have a yardstick by which they may measure their sales force.

Practically anyone, so a government bureaucrat has concluded, is a salesman if he can pass these rudimentary tests: (a) breathe; (b) write his name; (c) place an order in an envelope; (d) turn pages in a catalog, presumably without showing undue fatigue; (e) close sales by cutting prices, making him a real wonder boy, and (f) have a mastery of elbow bending.

Here's how the United States Employment Service describes a salesman so that its interviewers will know one when he walks in the door:

"Calls on prospective buyers in the retail market and solicits orders for merchandise, the selling of which requires no professional or technical knowledge.

"Attempts to interest prospective buyers by showing sample articles or displaying catalog.

"Quotes prices and credit terms. Tries to complete sales with hesitant purchasers by offering reductions, giving information

regarding contemplated price rises, or obtaining the good will of the purchaser frequently by entertaining him.

"Takes orders, forwarding them to the home office.

"Keeps expense accounts, studies trade periodicals, and keeps informed of price changes and other market conditions.

"Attends sales conferences and other meetings to exchange sales information.

"Usually operates within a restricted territory making periodic calls on customers."

Not even by implication has this bureaucrat permitted any allusion to *selling ability* to becloud his definition.

We can't resist observing that the authority for this remarkable description of a salesman, the United States Employment Service, was charged until recently with the responsibility of certifying the unemployed for unemployment insurance. It is just barely possible that what they were describing was an unemployed salesman which, in these times, is a different breed of cats. Even an unemployment insurance interviewer, we suppose, would need guidance in cataloging an applicant who is trying to "sell" Uncle Sam on the idea that he isn't able to go out and get a job in these boom selling times.

Full Color Radio Facsimile Is Now an Amazing Reality

● **BLACK** and white facsimile, the transmission of one-color copy by wire or wireless, was accomplished a decade ago. In fact, even before World War II miniature facsimile daily newspapers were being broadcast by nineteen radio stations in the United States.

But only recently has the successful transmission of full color copy become an amazing reality. "Colorfax," as the device is called by its co-inventors W. G. H. Finch and Dr. LaVerne R. Philpott, opens up a broad new horizon to radio listeners, commerce, and industry. Radio lectures can be illustrated with colored charts, advertisements in realistic full color can be sent by radio, Sunday's colored comics can be delivered to children right in the home by radio, news can be vividly illustrated with pictures that are in lifelike color.

You Can Record the Picture

Not only that, but if you wish you can direct the incoming pictures onto a recording wire or ordinary phonograph record, and then later print them on paper at your leisure. This is possible because the impulses can be converted either into sound or something to look at. The sound, incidentally, isn't musical—it sounds something like a squeaking mouse that is intermittently interrupted by a scratching noise.

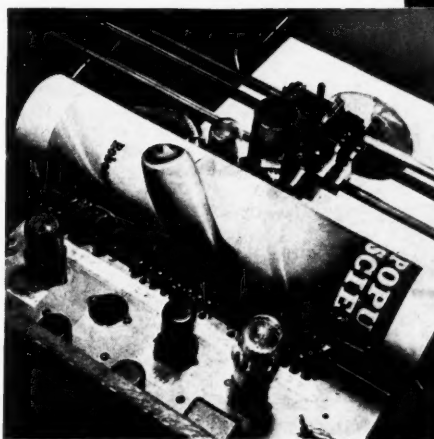
The first practical application of Colorfax was the transmission of *Popular Science Monthly* magazine's November, 1947, cover. PSM called it "Tuning in a painting" and described and illustrated the procedure in the magazine's November issue. After the transmission of the drawing of the cover, a Kodachrome of the cover in the Colorfax receiver was used for the copy when making the printing plates for reproduction.

Early Experiments Complex

Early experiments in the transmission of colored copy were complicated and time-consuming, involving breaking down the pictures

into the primary colors, separating the colors, radioing each separately, and then putting the whole conglomeration together again at the receiving end.

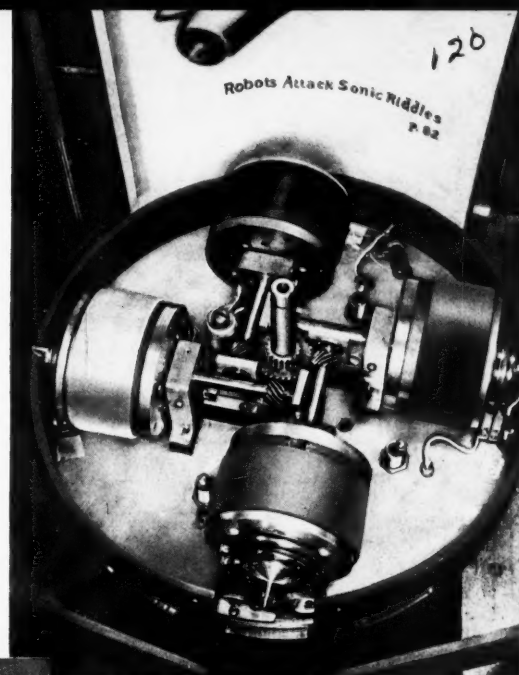
There had to be a simpler way, and W. G. H. Finch, of Passaic, New Jersey, found it. Colorfax is not only simple, but it uses plain, ordinary paper—not some special paper, moistened, sensitized, or specially



prepared in any way. No "finishing" or "developing" is required, the finished product, duplicating the original copy, comes directly out of the receiver.

Here's How Colorfax Works

Basically, this is the way Colorfax works: The original copy is fastened to a revolving drum. A pinpoint light scans the copy with a fineness of 100 lines to the inch. Light reflected by the original copy in various intensities is transformed by a photoelectric cell into electrical energy. A filter disc separates the colors into primary components—yellow, red, and blue, to which black is added to strengthen the dark areas. The light source, photocell, and filter are mounted on a single carriage which moves along as the drum rotates. The energy from the photocell is amplified and



ABOVE: Receiving apparatus "drawing" *Popular Science Monthly* magazine cover which is in process of being transmitted by color facsimile. Device is essentially four mechanical pencils—one for red, yellow, blue, and black—each of which, when actuated by a voice coil, makes a mark on paper when its turn comes if the incoming signal from the transmitter tells it to

LEFT: This is "Colorfax" transmitter, shown radioing PSM's cover painting—the first operation of its kind. After transmission, a Kodachrome of the cover in the receiver was used as copy in making four-color process printing plates for reproduction. Black and white facsimile was used in broadcasting miniature newspapers a decade ago; radio color facsimile is brand new

imposed as modulation upon a carrier wave.

A receiving device is essentially four mechanical pencils—one for red, blue, yellow, and black—which can be made to mark on paper in accordance with instructions from the transmitter. When the scanner of the transmitter sees red in the original copy, it instructs the receiver to make a red mark on the paper. Mixed colors are of course produced by blending the three primary colors.

Black and white facsimile can be stepped up to a speed of 44 square inches a minute. Color facsimile, since its mechanism is required to make four marks instead of one, takes four times as long.

And so it goes: Radio commonplace yesterday, television today, and color facsimile tomorrow. *What won't they think of next?*

The Inland Printer is indebted to *Popular Science Monthly* magazine for the data and illustrations used in this article

Metropolitan Daily Meets an Emergency



Copy is first typed on ordinary typewriter, as nearly newspaper column width as practical, with notation at end of each line indicating number of spaces required to make line full measure



On "Varityper" machines, with right-hand-margin justifiers, copy is retyped. Lines are full measure; appearance simulates type-set job. Material is checked, then sent to art department



Heads are set by mounting individual letters, printed on cardboard, on paper with Scotch tape

Artists assemble heads and news matter to form newspaper pages, complete except for the illustrations. Engraver then makes zinc plates



Data and Photos Courtesy of the Chicago Tribune

When linotype operators and composing room employees walked out on November 24, Chicago's metropolitan dailies were faced with the tremendous task of improvising a new method of newspaper production. Read how the Chicago Tribune met the emergency.

● NORMALLY, one of the major operations in the production of a newspaper is performed by the composing room. When that department suddenly becomes inoperative, as it did when all Chicago newspaper linotype operators and compositors went on strike November 24, a newspaper such as the Chicago Tribune (which publishes over a million copies daily) has its strength and ingenuity taxed in a struggle to produce an adequate publication.

First step in the Tribune's strategy to cope with the situation was to put into operation a battery of typewriters to replace the silent linotypes. Nearly every Tribune office was stripped of secretaries and stenographers. New employees were added to the staff. Within a few days a school was set up to train new recruits in the operation of the Varityper machines which type the copy for reproduction.

Engraving Department Burdened

On the Tribune's photoengraving department also fell a heavy burden, since the new production process made necessary the handling of almost every bit of news matter and much of the advertising by the engraving department.

From this uncertain start, utilizing makeshift methods, Tribune employees progressed toward their goal—the production of a newspaper affording the same wide news coverage, public service, and advertising as previous editions. Progress was rapid, with issues doubling in size, legibility improving, and production speeding up.

Basically the procedure involves typing the news matter, then making zinc

plates from the typewritten copy. After these steps come the usual processes of making a paper matrix of the plate, baking the damp paper dry in the shape of a half cylinder, and from this molding a metal plate which can be locked on the press for printing.

Copy from the newspaper's editorial department is typed first on ordinary typewriters as near newspaper column width as practical, with a notation at the end of each line indicating how many spaces are required to make the line full column measure. After this preliminary typing, the copy is again typed on "Varityper" machines, which incorporate a right-hand-margin-justifying device which makes all lines full column width.

Art Department "Sets" Headlines

After being checked with the original copy, this material goes to the art department. Here headlines for the news stories have already been "set" by mounting letters (printed on individual pieces of cardboard) on paper with Scotch tape. Artists then assemble the headings and news matter to form a newspaper page, complete except for the illustrations.

These paste-ups next go to the photoengraving department where a zinc plate is made of the page. Halftone plates, made from the photographs, are dropped into place. The entire page form is locked up and is then ready for the matrix room.

Results Very Commendable

Results, in view of the handicaps present, are exceedingly commendable. Editions are fewer, since any change involves replating. An accurate comparison of the costs of the two methods would be difficult. A news story from Washington did make this statement, however, "The budget bureau has obtained authenticated reports that Chicago publishers are saving thousands of dollars daily by using a modified form of a typewriter known as a Varityper."

Halftones are dropped in, pages locked up, matrices made, semi-cylindrical metal plates molded and locked on press. Then presses roll



Conditioning Paper for Press

● AS LONG as the difference between the paper and the surrounding atmosphere is great, paper will take on moisture or lose it very rapidly. As it approaches the condition of the atmosphere this rate slows down greatly. Nevertheless, if the surrounding air is drier than the stock, it loses moisture more slowly than it will take it on. By hanging paper in a room which has a higher humidity than the paper, it is impossible to introduce enough moisture into the paper to prevent it from picking up more on the press.

In the first place it seems that there are two different points of equilibrium: the one which results when wet paper is dried, and the other when the dry paper picks up moisture. These actually represent differing percentages of moisture for the same paper at the same humidity, and the hygroscope will not indicate this. In the second place moisture on the blanket of the press will be picked up by the paper.

Stock which has been conditioned up to room conditions will continually pick up moisture on each succeeding time through the press. This makes each color more out of register than the preceding one. Stock which has been conditioned down to room conditions will not show this tendency to as great an extent, and it is possible to so condition stock that it will be completely eliminated. This is done by first bringing the stock into condition with a relative humidity that's considerably higher than that of the pressroom and then bringing it down to a point just higher than that at which it is to be run. Paper thus treated at the mill is commonly known as "preconditioned" paper. Such stock can be used in air-conditioned pressrooms without ever handling or restacking. Even in unconditioned rooms the majority of the common troubles caused by paper are eliminated.

If the Foundation sword is used, the reading should be that shown in Figure 1. First the instrument

should be set for room conditions, by either placing in front of a fan or waving the blade gently in the pressroom air for several minutes until the pointer no longer moves. The dial is then turned until the center heavy mark is in line with the pointer. The blade is inserted into the load of paper, and the pointer moves to the mark shown. If the sword which reads directly in relative humidity is used, then the reading should be between five and ten per cent higher than the room.

Perhaps the most graphic illustration of the behavior of paper on an offset press is that shown in Figure 2. Five different lots of the same stock were used on the same seven-color map job at the United States Coast and Geodetic Survey. Each lot differed only in moisture content as shown by the indications on the dials. Much of the offset paper on the market today is every bit as dry as Lot Number 1. If this stock were hung in a pressroom with 45 per cent relative humidity (in this case the pressroom was air-conditioned and maintained at that) the results would correspond to those shown for Lot Number 11. The indicator shows that Lot Number 21 is in equilibrium with a humidity of about five to ten per cent higher than that of the pressroom, or at the optimum moisture content. Lot Number 31 was in condition with a relative humidity of about 55 to 60 per cent while Lot Number 41 was close to 65 per cent.

At first glance marks and figures shown in the panels may appear confusing or even contradictory, but when you consider that the line marked the "First Color" represents the extreme edge of the image of the first-down color after the six

succeeding colors have been run, and that the marks numbered 2 to 7 show where this same edge printed on the successive times through the press, the proper interpretation can be put on the figures given. The printing size of the image was 43 inches across the back edge of the sheet, and the marks could be considered as representing the register marks on the off side (side away from the guide) of the sheet. The fact that the marks have been spaced out in the around-the-cylinder direction is only for the convenience of illustration and does not have any reference to the stretch of the sheet in that direction.

From the illustration it can be seen that the Lot Number 1 had continued to stretch on each trip through the press until at the end of the fifth trip it was over one-tenth of an inch out of register. This means that the image of the first color was over one-tenth of an inch larger than at the time it was printed. The sixth and seventh times through the press reduced this only slightly. Lot Number 11 which had been hung in the pressroom fared much better and its maximum expansion was only about one-fourth as much as Lot Number 1, but compared with Lot 21, which had been seasoned to a point as nearly perfect as possible, its expansion was ten times as great. Even Lot 31, which was considerably on the damp side, had a change in size less than half as great

as Lot 11, while Lot 41, which was as far on the wet side as Lot 1 was on the dry side, changed about the same amount as Lot 11. Since in the last two instances the paper had dried slightly, print of first color was smaller than those following.

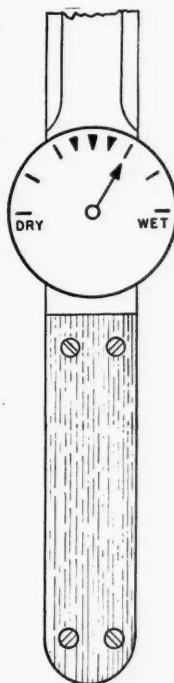


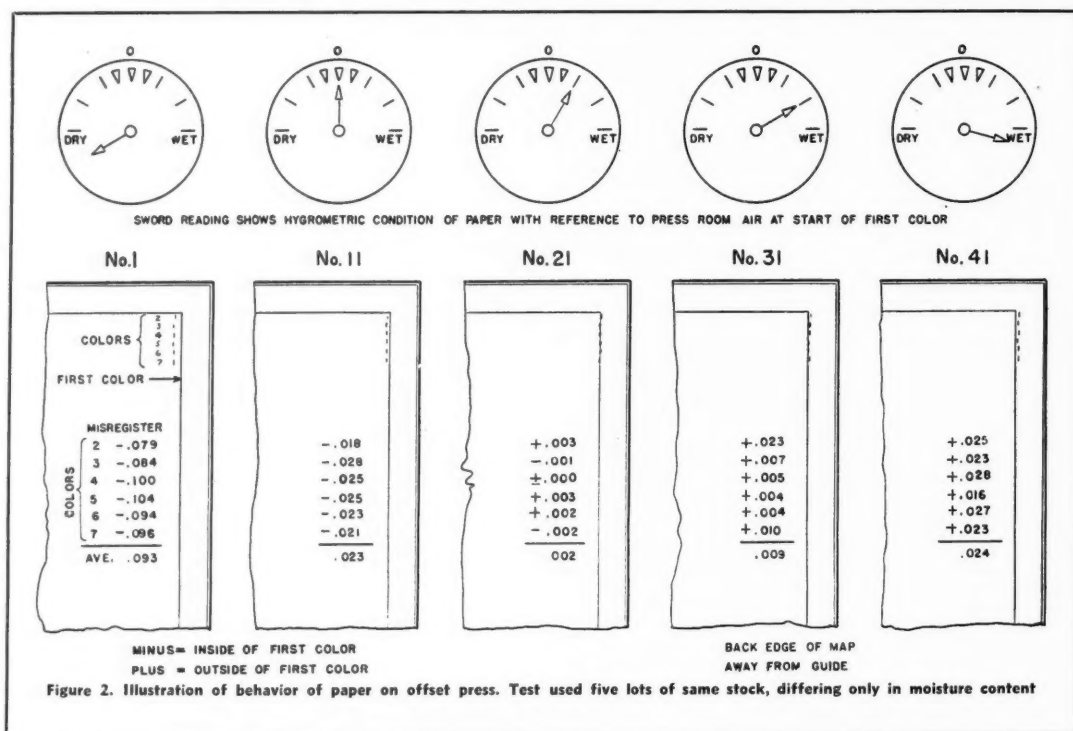
Figure 1. Foundation's "sword" for checking the humidity of paper

The behavior of Lots 31 and 41 show why the preconditioned papers will work better even in pressrooms which have no humidity control. Consider that the paper has been conditioned to correspond to Lot 21. Then running this paper in a pressroom whose relative humidity was between 30 to 35 per cent would give about the same change in the dimensions as running Lot 41 at 45 per cent. Even when the humidity climbs up to 55 or 60 per cent the stretching would only be comparable to that of running Lot 11 at 45

could do about it. Also, as stated previously, misregister is not such a problem on small presses. On a 17-by 22-inch press even Lot Number 1 would only be out of register 0.05 inches, and since a pressman will fit to the center of the sheet, in such cases the edges would only be out of register 0.025.

There is a point which the large users have seemingly overlooked. Although they have their own seasoning equipment very little of it seems to be equipped to add more moisture to the paper than is pres-

No mention has yet been made of temperature and its effect. In interpreting the foregoing statements regarding paper and humidity it must be assumed that there are no radical changes in the temperature of either the paper or the pressroom, and that the paper is approximately the same as the room. We have stated that the term "relative humidity" is a misnomer when applied to paper. "Relative humidity" is a term applied to atmosphere and means the degree of saturation. Warm air can contain much more



per cent, and in order for the paper to stretch as much as it did when Lot 1 was run at 45 per cent, the pressroom would have to be literally dripping wet. As far as operating at conditions much below 30 per cent, even with the best static eliminators it is not too easy and tight edges are likely to give trouble. Most plants do have some means of adding moisture to the pressroom during the winter when this condition is most likely to occur.

Although the chart was first published over ten years ago most paper mills still do not supply paper with the proper moisture content. This may be because most of the larger users possess their own seasoning equipment and hence have not demanded it; and small users have just blamed the weather and figured that there was nothing they

ent in the pressroom atmosphere. Figure 3 is a drawing of a type of seasoning machine which is capable of adding the desired moisture. Such a machine was used in conditioning the stock for Lots 31, 41, and 51. Through its use it is possible to introduce the amount of required moisture rapidly, making season-time short. Measured amounts may be added for very exact control.

Earlier in this article mention was made of the fact that when paper is brought up to a certain relative humidity the moisture content is lower than when it is brought down. By introducing measured amounts of moisture this trouble is eliminated. Otherwise, in order to be sure of the moisture content it is necessary to first carry it above the desired humidity and then condition it back to that point.

moisture than cold air without becoming saturated, hence air which is completely saturated (has a relative humidity of 100 per cent) at 68° F. is only a little more than half-way saturated at 88° (has a relative humidity of 55 per cent). In each case it contains exactly the same amount of moisture or water in the form of vapor.

This, of course, is why the relative humidity becomes so low indoors during the winter. There may be a cold drizzling rain falling outside indicating that the outside air is practically saturated, but when that saturated air is warmed to room temperature the relative humidity becomes very low even though the amount of moisture in the air in both instances may be exactly the same. Thus if a room which had a relative humidity of 45 per cent at

78° cools down over the week-end to 58° the relative humidity of this room will climb to 90 per cent. Likewise, if this same room is warmed to 86° the relative humidity will drop to 34 per cent, providing no moisture is added. Also if the relative humidity of a room is 45 per cent at 68° a room with the same relative humidity at 86° will contain practically twice as much moisture.

Paper does not follow the relative humidity curve. In other words, the paper that has been seasoned to be in condition with a room which is 68° and has a relative humidity of 45 per cent will not have the same moisture content as paper which has been conditioned to 86° and 45 per cent, and it is moisture content which determines the dimensions and dimensional stability of paper. Neither will the paper which is conditioned at the higher temperature contain twice as much moisture as the one conditioned at the lower temperature. There is evidence that where temperatures are above 80° there is a relation between the *absolute humidity* (moisture content of the air) and the moisture content of the paper rather than between the relative humidity. Until such a time as this relationship can be more fully understood, relative humidity, without mentioning at what temperature, is meaningless when referring to paper. Air conditioning must control both temperature and relative humidity, and any specifications regarding paper must include both measurements. Stock should not be run cold or hot,

OFFSET QUESTION AND ANSWER DEPARTMENT

Send in your queries on any phase of lithography for answer in this department by Charles F. King

TEXTS ON LITHOGRAPHY

In your November "Offset Questions and Answers Department" you refer to textbooks on offset printing that are published by the Lithographic Technical Foundation. Please send me the address of the LTF so I can find out what books are available and how I can get them. As a former letterpress printer and now a student in advertising, I have a keen desire to learn all I can about offset printing.

The Foundation has printed lists available of all the material which it publishes. This consists of a series of textbooks on the various processes which every tradesman should know, shop manuals or short sketchy summaries of these processes, research bulletins, and technical bulletins. It is unlikely that you would want any of the manuals or bulletins and not all of the textbooks would be of interest to you. I would advise your sending for the list. Select one or two of the texts which appear to interest you. If you have no knowledge at all about lithography, these books will not be much help since they do presume that the reader will have the materials and equipment available to

USE OF GLYCERIN

I make offset plates, mostly surface (albumin coating). A large percentage of our Multigraph plates are made for firms who have Multilith presses 10" by 14" inches. A great number of these presses are operated by men who have not the qualifications expected of a journeyman operating a large lithographic press. Consequently mistakes are often made, such as running with too much ink and too little water, resulting in catch-up or scum, or allowing the plate to dry on the press without gum. Therefore a fool-proof plate is called for.

There is a certain method employed by some platemakers whereby the finished plate is sponged with a chemical substance containing, I think, glycerin. The effect is to keep the non-printing areas out of contact with the ink rollers. Is this true, and can you give me any information regarding this?

To the best of my knowledge there is no published information regarding the composition of the materials to be used on these presses. One of these solutions (an etch) contains a small amount of glycerin, but the purpose is not as you suggest.

The use of glycerin in lithography is not new. Formulas for etches and

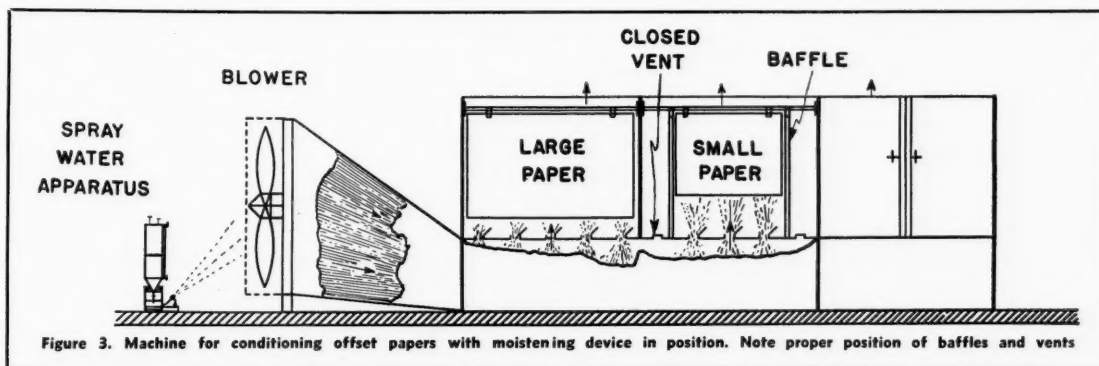


Figure 3. Machine for conditioning offset papers with moistening device in position. Note proper position of baffles and vents

but stored in the pressroom for time long enough to permit it to reach room temperature.

(The greater part of the information used in the foregoing discussion was taken from the several Foundation and Bureau of Standards bulletins and all illustrations are taken from these publications.)

follow the steps described in performing each operation. The books were primarily designed for use in trade schools as well as for "in-plant" training.

The address is: Educational Department, Lithographic Technical Foundation, 131 East 39th Street, New York 16, New York.

fountain water mixtures in which the use of glycerin has been suggested have appeared in print time and again, but they have never been very popular. Since it is a very hygroscopic material and takes up the moisture from the air easily it is used in many products to keep them moist. The tobacco industry has

used large quantities of it to keep its products fresh and moist. Hence the conclusion that it should be an ideal substance to keep a lithographic plate from drying. If glycerin had been used in the solutions applied to the Multilith plates which were spoiled, the likelihood of their rolling up solid or scumming should have been greatly lessened.

Every so often someone rediscovers this property of glycerin and is sure that he has found the answer to all the problems in lithography, but sooner or later trouble appears which is ascribed to it and its use is abandoned.

ADDING WORK TO PLATES

Enclosed are two samples of the work produced in the duplicating department at the General Motors Institute. The pictures were run from metal Multilith plates. The captions and identifications were run as a separate printing from paper Multilith plates.

When the metal plates were made originally, the captions and identifications were not put on with the picture. Now the duplicating department asks me, as the printer on the staff, how they can add the identifications and captions to the metal Multilith plates they already have. I have been telling people for so many years that it can't be done that I am getting suspicious. Maybe some smart young person has developed a way of doing it.

Do you know of any such method of adding work to a Multilith plate that is already made or can you direct me to such information? We are going to try some things ourselves but we would like to know what has been tried.

There are at least two methods by which you can add work to these plates after they have been made. If you wish the job to appear uniform and have hand-lettering such as appears on the rest of the drawings, or if you wish to set type for the forms you could add what is commonly known as an albumin "set-in" to the plate. This method has been used both on the office machine duplicators and on the large presses used for commercial work.

First a line negative must be made which contains all the work which is to be inserted. The negative is then stripped up so that this work is properly positioned and keyed to the work on the plate. Only the work which is to be added should appear on the flat, and goldenrod or other such paper should be used for mounting the negatives.

If the plate has been washed out, it should again be inked up. This may be done by applying developing ink and developing the plate in the usual manner, or it may be rolled up by hand or on the press. The plate

is thoroughly washed with water to remove any excess gum, and then dried rapidly. French chalk or talc is dusted over the entire plate. This deposits a material which may be wet with water on top of the greasy ink in the image areas, and makes it possible to coat the whole plate uniformly with the regular light-sensitive surface coating. If talc or some similar material is not used the ink will repel the coating and the process will not work well.

The plate is coated in the usual manner and is then exposed in the vacuum frame in contact with the

negative which contains the work to be added. If proper care is taken in lining up the negative with the work on the plate, set-ins may be added right up to the edge of the old work. Following exposure, the plate is developed just as though it were a brand new plate. After it has been desensitized and gummed, it should be washed out completely. This is exceptionally important as the old ink with the talc over it must be entirely removed if these portions of the plate are to be ink-receptive.

Making set-ins by this method is an every-day practice in many commercial shops, and although I have never tried to make one on a Multilith plate I am told that it is being done regularly.

The other method to which I referred permits the addition of type-written work to the plate directly. Actually this is an adaption of the old hand-transfer method of making additions to plates, and varies only in the means of transferring the image.

The plate is thoroughly washed with water to remove as much of the gum as is possible. If the material to be added is to occupy large areas of the plate, a counter-etch may be applied over-all. If there is only a line or two of work to be added, the counter-etch may be applied locally to the plate with a brush. In this case the gum need not be removed from the entire plate but only from that particular area which is to be counter-etched.

As in the case of the albumin set-in the plate should be inked up well before the gum is removed. This will insure adequate protection for the image areas while the counter-etch is reacting with the metal. A weak solution of nitric acid (about 1 or 2 per cent) or ferric chloride (about 2 to 3 per cent) worked over the plate with a soft brush or cotton should re-sensitize the plate. After completely removing the counter-etch with water and drying the plate, it may be placed in the typewriter and whatever text matter is to be added may be typed directly on this plate in the same manner as it was typed on the paper Multilith plate, using the special ribbon which has been designed for the purpose.

Etching with a good strong solution is necessary in order to again make the non-work areas receptive to water. Also care must be taken not to smudge or smear these areas with any greasy materials while the plate is in a sensitive condition.

Adding work to any offset lithographic plate is very tricky but it is possible to do it.

QUESTIONS

It's a Quiz

Answers to the following list of questions have appeared in the pages of THE INLAND PRINTER and other sources of information to printers at various times. How retentive is your memory? How many of these questions can you answer without turning to the answers on page 80?

- Unscramble the associations with the type styles of the individuals listed below:
 "Venetian" John Baskerville
 "Modern" Nicholas Jenson
 "Oldstyle" Giambattista Bodoni
 "Transitional" William Caslon
- One of the following is an automatically-fed platen press. Which one of these four presses is it?
 a. Miehle Vertical
 b. Kelly No. 1
 c. Kluge
 d. Miller Simplex
- The very first movable type was made of
 a. Wood
 b. Metal
 c. China
 d. Copper
- Colored ink pigments are derived from sources embracing the
 a. Animal
 b. Vegetable
 c. Mineral
- One of the first folding machines was used by the Philadelphia Times in what year?
 a. 1856
 b. 1876
 c. 1902
 d. 1910
- Hairline rules within a type form require less pressure to print best by letterpress—how much less pressure in thousandths of an inch?
- Match correctly the scrambled dates connected with the origins of these processes:
 a. Gravure1870
 b. Letterpress1796
 c. Lithography1879
 d. Collotype1450
- What is the thickness of the light-hardened albumin film on an offset plate?
 a. 0.000035 to 0.000062-inch
 b. 0.00035 to 0.00062 -inch
 c. 0.0035 to 0.0062 -inch
 d. 0.035 to 0.062 -inch



PHOTO-ENGRAVERS BULLETIN

DECEMBER 1947

VOL. 57 · NO. 5

"On his way"—From the cover of its bulletin Louis Flader bids farewell to the American Photo-Engravers Association after serving it as commissioner for thirty-five years. An outstanding and widely respected figure in the photo-engraving field for many years, he retired from his post on December 31



El'chem

M A G A Z I N E

Robert Donovan designed and painted this beautiful cover for the Christmas issue of El'chem, house magazine of the Electrochemicals Department, Niagara Falls, of E. I. duPont de Nemours & Company, through whose courtesy it is reproduced here

Santa Claus Doesn't Mean Christmas in Latin America!

● NORTH AMERICAN manufacturers have long been aware of the tremendous possibilities in cultivation of the Latin American market. However, many an advertising campaign . . . prepared in the United States without a thorough knowledge of how our Latin American neighbors live and think . . . has failed to succeed.

Develop Unusual Idea

With such a situation existing, the John Maher Printing Company, of Chicago, developed the idea of an organization (within their existing business) possessing the special knowledge and ability necessary to conceive, produce, and distribute printed advertising which would effectively reach the Latin American market. Today this unusual business represents a sizable part of this firm's operations. The service is complete, including counseling, translating, typesetting, proofreading, printing, and distribution.

Counsel is given to prospective advertisers by men from the Latin American countries who are familiar with the language, culture, temperament, traditions, prejudices,

The Latin American's language, culture, temperament, traditions, prejudices, and social customs differ from those of his North American neighbor. Out of these differences, an enterprising Chicago Printer has built an appreciable volume of business preparing effective printed matter for Latin America

and customs of their homelands. These counselors know, for example, that the Latin American is even more concerned with saving energy than time or money. That he takes very seriously some things which we may toss off as inconsequential. That some North American traditions, such as Santa Claus, mean nothing to Latin Americans.

Research, conducted by experts with first-hand knowledge of Latin

American markets, revealed such facts as that: Long letters will pull more orders and inquiries than the short letters. When a letter proves exceptionally effective, a repeat mailing will often bring better returns than could be obtained with an entirely new letter. Trick mailings should be avoided; standard mailings are best. And, printed advertising should be extremely complete and lucid.

Good Translation Vital

Translation is a vitally important phase of the Maher service. In translating Spanish (the principal tongue of our southern neighbors) it is probably more important than in translating any other language to be careful of pitfalls. Many ordinary Spanish words have local connotations of a slangy or derogatory nature in certain applications; some have double meanings; others are colloquialisms. It is imperative that the translator be thoroughly familiar with the language in order to avoid insult or offense. The translation of technical advertising copy further demands familiarity with the exact scientific and technical terminology, including the correct nomenclature of new articles not found in Spanish dictionaries.

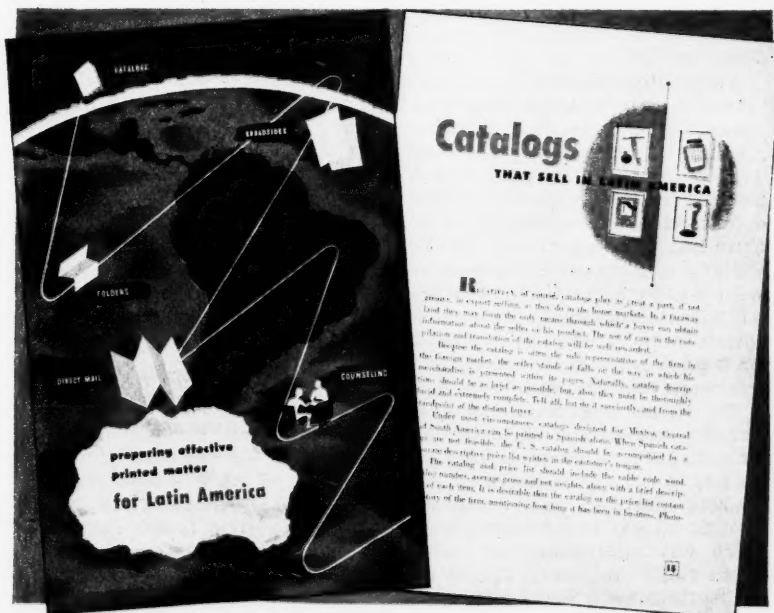
Staff Knows Spanish

Typesetting is done by operators who are acquainted with the Spanish language.

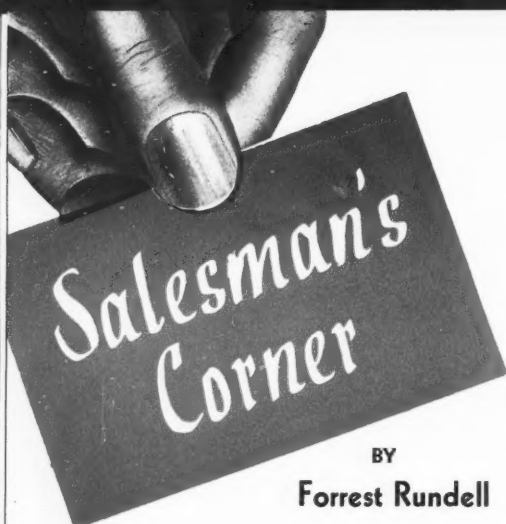
Proofreading likewise is handled by men who read for meaning as well as for typographical accuracy.

Mailing and shipping is under the supervision of those who have an intimate knowledge of Latin American customs, rules, and regulations pertaining to printed matter.

So the Maher company has put everything the prospective Latin American advertiser needs "in one package." And it has proved to be quite a business.



Cover and typical page from colorful 28-page booklet describing Maher's unusual service set up to assist North American advertisers in the preparation of effective printed matter for Latin America



BY
Forrest Rundell

● WHAT does a purchasing agent mean when he greets you on your first call by telling you what low prices he gets on his printing? Who is he trying to fool?

Maybe he is trying to fool you. Maybe he is being perfectly honest with you and with himself. Maybe he is only kidding himself. Anyway, here are some of the possibilities:

First, it is a purchasing agent's job to buy the best printing and the best service he can get for his employer's money. There is no getting away from that. The salesman who does not understand this obligation and shape his sales campaign accordingly is in for trouble. But the experienced buyer knows that the lowest price does not of itself guarantee the most for the money. He is aware of the fact that a capable salesman knows this as well as he does. And he realizes that one of the simplest ways of smoking out the salesman's knowledge of his product and of the market is to start a discussion on price. For him it is a quick way to find out what the salesman has on the ball.

"The Price is too High"

A second reason for his boasting lies in a well known weakness of salesmen. Buyers have found that the quickest and the least painful method of getting rid of a salesman is to tell him that his price is too high.

The writer remembers an incident of his paper-selling days which illustrates this situation. The firm for which he was working made a successful bid for the cover paper for a large mail order catalog. After the contract was signed the salesman and the buyer enjoyed lunch together. Over the cigars the discussion became confidential and the remark was made that some sixteen salesmen had competed for the contract. "Most of them were wasting their time," said the buyer, "be-

cause only three of the papers interested us; your cover stock and two text papers, one of which we eventually bought. The others offered standard papers at various prices. All cost less than those we bought but none would have done the job we wanted. The interesting thing was that we simply told each salesman his price was too high and he went away without argument."

Verily there is never a price low enough to make the sale of an unwanted product.

Third: The buyer may really be up against one of those situations where buying is really done entirely on price. The person who has the responsibility for designing and following up the production of the printing may have nothing to say as to who prints it. That job may be assigned to some young man in the purchasing office who sorts out the bids, picks the lowest, and writes the order. Quality or co-operation mean nothing to him. He may not even know good printing from bad. He is simply there to see that the low printer gets the job.

In that situation the printing production man is doing you a favor by warning you that price is the only thing that matters. Under their current set-up, therefore, if you have something better to sell it will be worth your while to go elsewhere.

Putting on the Pressure

Fourth: Buyers sometimes go on fishing expeditions. Salesmen have been known to lower prices under pressure and some buyers feel there is no harm in trying a "war of nerves." This recalls another incident. The writer was trying to sell a group of printing brokers who talked in large numbers. They were working on a proposition involving a couple of carloads of paper and were pursuing a low price like a pack of hungry wolves. An official of our company decided to smoke them out and to that end invited them to a luncheon. The discussion went on for some time, then the official casually mentioned a price. The brokers agreed that it was a good price but said they had one a quarter of a cent lower.

The conversation shifted to other matters and after a while the official named another price, this time coming down to the low price the brokers said they had. Again the brokers agreed that it was a good price but said they had one a quarter of a cent lower. The official smiled to himself and let the conversation drift into generalities. Just as the party was breaking up the

official dropped his price another quarter of a cent. And for the third time the brokers agreed that it was a good price but that they had one a quarter of a cent lower.

The official paid for the lunch in peace of mind. Any crew that couldn't remember a quotation halfway through a meal wasn't worth bothering with. P.S. The brokers didn't get their order.

Fifth: It sometimes happens that a buyer *does* wrangle an exceptionally low price out of a printer. If the buyer is in a big city he may have found some little printer in a

Definition of a Salesman

1948 MODEL

● Recognizing that wartime order-taking is out and that salesmanship must again be developed, some 1,200 salesmen and sales managers from mercantile, jobbing, and manufacturing concerns recently convened in Los Angeles for a panel discussion of selling problems.

● On that occasion Harry G. Mook, vice-president of the Chrysler Corporation, gave the following droll description of the ideal salesman:

● "He has the curiosity of a cat, the tenacity of a bulldog, the friendship of a little child, the diplomacy of a wayward husband, the patience of a self-sacrificing wife, the enthusiasm of a Sinatra fan, the assurance of a Harvard man, the good humor of a comedian, the simplicity of a jackass, and the tireless energy of a bill collector."

● Notwithstanding Mook's amusing approach, his description of the 1948 model salesman is a penetrating one which sales managers and employers generally might well memorize. In interviewing applicants for selling positions, employers might, with profit, check off on their fingers the ten qualifications which Mook has enumerated.

small town who welcomes a steady flow of business at a low mark-up. Such a printer, already operating at costs well below those of big city shops, may have cut his price to a point at which it is impossible for the big city printer to compete.

Specialize to Cut Costs

Moreover, a few shrewd printers are learning the value of specialization in cutting costs. Such printers, operating in the lower wage cost regions, can come into the big markets and run the printers there dizzy in the matter of prices. One modern plant, south of the Mason-Dixon line, specializes in insurance printing. This plant came into the New York market with prices so low that buyers regarded them with undisguised alarm. The advertising manager who told the writer about this company said that the work they did for him was entirely satisfactory. "But," he added, "some of the other buyers they approached were afraid to give them work because their prices seemed too low to cover the cost of a good delivery."

Don't decide at once that the buyer is not showing the proper regard for the truth when he tells you about the low price he has secured on some quantity production job. Investigate first. He may be paying as little as he says.

Sixth: The buyer may be perfectly honest with you in saying that he gets low prices. He may be taking the lowest bids under the impression that by so doing he is getting the most for his money. In thinking this, however, he is as likely to be wrong as to be right. He may or may not be getting printing that passes the test of "fitness for its purpose." It is almost certain that he is not getting all the service he needs, unless he has an understanding of printing production far beyond that of the average buyer.

What to do?

One thing in particular must be remembered when we consider the purchasing agent's stock defense: "Your price is too high." Price troubles have a way of disappearing as we make a better and better impression on the buyer. Take our first buyer, for example; he is really giving the salesman a chance to show that he knows what it is all about. If the salesman passes this test he is well on the road to a better acquaintance with the buyer. And if the salesman really knows his stuff and can keep his prices in line for the grade of printing the buyer needs, he has a good chance of breaking into the account.

Or take the second type, the one who uses the "price too high" dodge to scare off new salesmen. He is not impossible, he's just a tough nut to crack. One of our good friends among the printing salesmen has an interesting angle on the way to handle him. Our friend calls attention to the fact that the man who buys on price buys himself a headache. Neither the salesman who cuts his price nor his shop has time to attend to all the details that go into making a satisfactory delivery. If the customer wants the job to look well he will be obliged to lay it out himself, check the proofs carefully, pray that the pressman will not miss the color match too far, follow up the various stages of the job, and generally act more or less as the shop production man on the job. It will be a continuous headache.

On the other hand, remarks our friend, if the customer pays enough to hire a good printer, he can save his aspirin. Once the details of the job are agreed upon he can practically forget it. It will be well done and will be delivered on time. And our friend says he can usually convince his prospects that the freedom from worry is worth the extra cost.

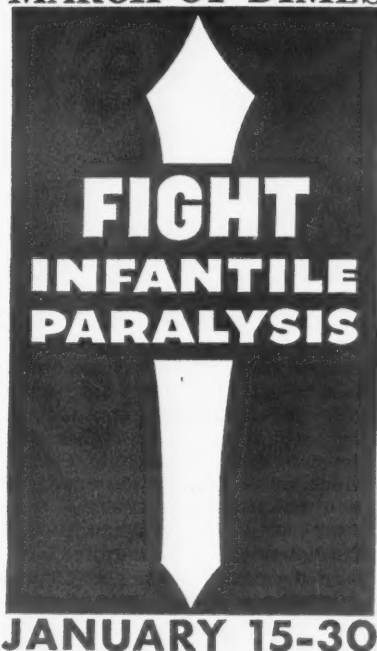
Where User is Buyer

The writer has just gone through a situation demonstrating this. He got a job on which another printer had bid lower, the understanding being that he would contribute extra supervision of the artwork and plates. This work proved to be no inconsiderable item. Much of the artwork and several photographs had to be remade.

The work was going along steadily, though a little slowly, when the production man suddenly announced that he was going on a vacation: Would the writer please take over his work on the job for the ten days he would be away? This meant handling all contacts with the account executive as well as with the artists, engravers, and so on. It took considerable extra work but the customer was paying for a good job with a minimum of trouble so he got his service. Just another advantage of buying on quality rather than on minimum price.

The third case, where the buying is being done by someone who has no responsibility for anything but the price, is pretty nearly hopeless. However, keep in touch with the man who plans the printing. Some day a job will come through so badly printed that its users will rebel. If they like you that may be your opportunity to break in.

MARCH OF DIMES



As for the fourth type of buyer, the one who goes fishing for low prices, don't let him fool you. Do a good selling job on him and you will find that he will be receptive when your proposition is good.

In the fifth case, the buyer who has been shrewd enough to get a combination of a low price and acceptable work is a toughie. Keep in touch but don't waste too much time on him.

The sixth case, the fellow who thinks he is serving his own interests by getting the lowest price possible, offers the best chance for quality selling. Remember, there is one grade of work which will serve his purpose best. Sell him that grade at the right price.

One other suggestion: In general the farther the man who buys the printing is from the man who uses it, the more trouble you will have with the price situation. But if the man who buys the printing is the one who has to get results with it, you can usually come to terms with him on price.

ERRORLESS TYPEWRITER

An electric typewriter, now patented, forms an entire line at once before printing, thus allowing correction of errors, centering, and justification. A special device warns of the space remaining at the bottom of the page, assuring even bottom margins.

Difference Between Success and Failure Depends on Accurate Knowledge of Costs

● WHEN THE management committee particularly requested me to give a talk on the subject of cost control and cost finding systems, I asked them why they had pinned this particular job on me. I gathered that it must have been because I had so little knowledge of the subject—or that I would tell the story so simply that it would be bound to be understood! I figured that if our accountant or our auditor did the job it would include details which would be over the heads of all of us—including myself!

Look at it this way: We buy hours at wholesale, just as a grocer buys canned goods, vegetables, and fruits at wholesale. We sell them at retail—just as the grocer, hardware, or drug merchant does. Unfortunately, we cannot sell all the hours we buy. Why? Just because of the peculiar nature of this business not all of our hours are saleable. And the total of these hours is staggering.

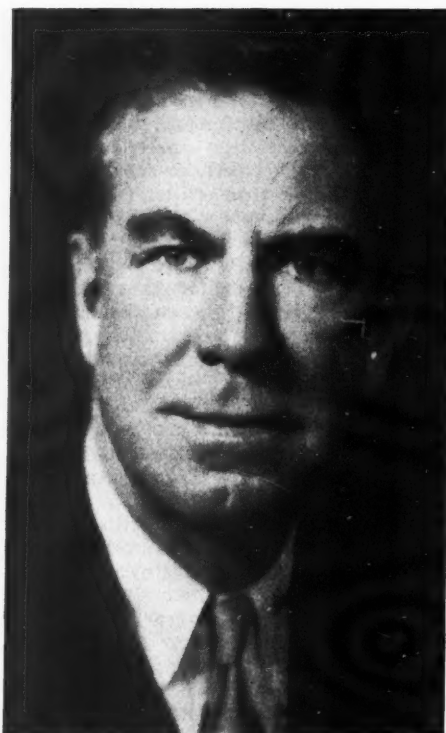
Let us say, for instance, that we buy 820,000 hours a year "wholesale"—just to use some sort of figure. Let us say that between 35 per cent and 40 per cent of these hours are spoiled for reasons which I will not dwell upon now. Incidentally, I have used a word which our accountant friends do not like—the word "spoil"—because with their figures they do not see why we were unable to sell these hours.

However, our unit of sale is, as I see it, the *chargeable* hour—the hour which we can sell. Actually, we do not sell by the yard, by the ton, or by the piece, as merchants do—we sell only the *chargeable* hours. Along with this we have to sell paper, ink, and other supplies but labor is our main commodity.

Making Up Spoiled Hours

Here's a case that always occurs to me when I think of our situation: the man who buys apples by the bushel. Let's say there are 100 apples to a bushel and that he pays 2 cents apiece for the apples. If he sells them at 3 cents apiece, he would have a fair profit. But, after he buys this bushel, he may find that some of the apples are spoiled. If he sells them from a cart on the street, he may have a policeman take a few once in a while—just to

C. C. Ronalds, president of the Ronalds Company, Montreal, explains the cost system of his firm before a gathering of employees



show his authority. By this time let us say that he has only 65 apples that can really be sold. Hence he must raise his price per apple to cover those which have spoiled, in order to make a reasonable profit. We are in the same boat—we have to make up those "spoiled" hours.

Now, just at this point, let me raise an issue that may already be in your minds. I should like to say, in all frankness, that you would be less than human if some of you at least hadn't begun to wonder what kind of a "catch" there is in this. I want to assure you there is none. Perhaps in the back of your mind an idea is already lodged that we are out to discriminate against the workers who aren't quite as quick as others, or to speed up jobs beyond

normal limits, or get two men to do the work now done by three—and fire the other! If that were so, we would be licked long before we start! And deservedly so. High-pressure stuff like that may get temporary results; in the long run—and often in the short run—it doesn't pay.

Very often I get the idea that some people feel that our cost system is something which was worked up to make our employees work so fast and hard as to make their lives miserable or to injure their health. Nothing could be farther from the truth—and if it ever works that way, I would consider it a personal favor if any one of you would report this to me.

No. This system has been devised for the *good of all* concerned—not only for the benefit of the manager, the estimator, the general superintendent, the production manager, the foreman, or any other individual but for all of the people in our shop. It is not intended to "catch" anyone—but only, and legitimately, to catch ourselves from giving our customers more than they are paying for, either intentionally or otherwise.

A salesman brings us a job to figure on. This happens every day, many times a day. The salesman says that the job will need this or that type of paper; there are so many pages of type matter; there will be this or that color breakup; and the job will require either close cut, square cut, or vignetted half-tones. That's what he was told. We make our estimate on that basis, believing that our client's advertising manager knew what he wanted.

Estimated and Actual Jobs

Well, we get the job. When it gets to our composing room we find that there are many tabular pages—or that some other vital feature is different from what was submitted when the estimate was asked for.

Sometimes these differences are not caught until they get into the composing room—and then we find that a man is called upon to put in five hours on a page which we estimated to do in three hours, or use three hours to make up a page which we figured as only two hours. And, as you probably know better than I do, a silhouette or vignette cut will take longer to make ready than a square cut halftone.

Most unfortunately, it is usually not until the job gets on the press that all these deviations from the original estimated time will be noticed. If this matter is brought to the attention of the office, we can take the matter up with the customer and let him know that there will be an additional charge for the difference between that upon which we estimated and the actual job.

Explanation of Estimate

We do not hold our estimators up to be infallible; they can make a mistake in estimating, but not careless ones, of course. But, whenever we have to estimate on a job of any size, we consult with the foreman of the composing room, the foreman of the pressroom, and the foreman of the bindery, asking each what their men and presses and folders can do in the way of production.

The estimate is quite simple as regards matters of paper and ink. Those things are just a matter of arithmetic which any of you could master in 24 hours. But in such matters as composition—the time on the keyboard and in the casting—the element of judgment and experience is highly important.

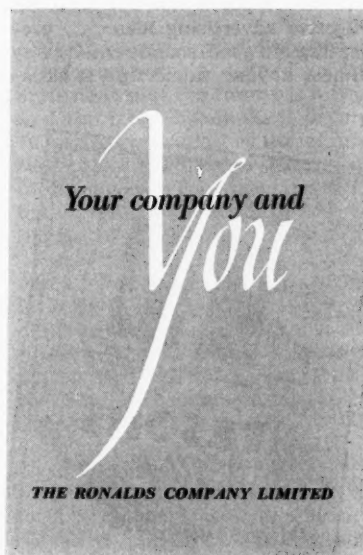
At one time I was considered to be a pretty good estimator. Of course, I haven't made an estimate in twenty-five years, and so I suppose I would be a poor estimator today; but I still find that when occasionally I am called upon to give an opinion on an estimate, I have a fair idea of what it is all about. This all dates back to the days when I was estimating.

But, even so, an estimate is not really as complicated as it looks to some of you perhaps (or to me, now after so many years). It is really just the cost of materials plus so many hours multiplied by the cost per hour. The foreman has nothing to do with the cost per hour, or the selling price per hour. He merely has to do with the question of how many hours or how many ems per hour the monotype must set, or with the time it takes to make up three or four pages. The pressroom

foreman has an estimate of similar nature. When a job is described to him, he will say something like this: "Well, it will take 10 hours of makeready, and I agree to your 1,200 impressions per hour, with such-and-such paper and this-and-that kind of job."

These men use their best judgment, on the basis of the facts furnished to them.

There are times, of course, when we have to face underbidding by competition. Of course, in these days when we are in a seller's market, we do not have so much cut-throat trouble; but we must not



Cover of the Ronalds Company's unusually informative manual for employees. In it both the operation and the purpose of the cost system are explained for the benefit of new employees

forget that we may have this in the future. However, let us suppose that we have a situation where the salesman comes back from the customer's office and says that the price submitted by one of our competitors (only, of course, we do not recognize competition in our field) is lower than ours. There may be a very legitimate reason for the lower quotation; they might have idle machines or idle men and want to make up the difference.

Working Basis for Next Job

What do we do then? We call in our estimator, and we say something like this: "Look, we've figured this job at 3,500 ems per hour; don't you think we can make that 4,000 ems?" Maybe we can. He talks it over with the boys and with the foreman, and usually we can get them to do better than they originally estimated. The number of

hours for makeready, or binding may be found less. Then we make up a reduced estimate, and our salesman may or may not get that particular order.

I want you to understand this estimated time. All of the Calculagraph cards which come down to the office day by day are entered on cost sheets and we have a column which gives up the figures comparing the estimated time with the actual performance. Sometimes the actual time is more than was estimated and we lose money for that reason.

It may seem that sometimes the management may be found at fault for being over-optimistic in thinking we could get the job out in less time. Sometimes it is an error by the estimator, or the foreman, or someone else—there are many factors which show up after a job is done. Every job teaches us something. For example, the estimator may find that even though the foremen and workers are entirely cooperative, we simply haven't been able to meet the time which was estimated. Such information gives us a working basis to estimate on the next job of that particular type which comes in.

Knowing One's Costs

For instance, if our estimating department figures half an hour a page for makeup on a certain big job and the over-and-under sheets show that it is worth one hour a page, then we have a chance to correct this error at once. Not only will we make a new contract for the particular job in question, but we will correct the estimate when figuring on similar work for other contracts. The same sort of thing can happen with the pressroom or bindery operations.

It is hardly conceivable that the management can predetermine exactly how many hours will be required to makeready every kind of form, black or color, and this goes for other operations, too. If we figure too big a production per hour (for man or machine) we are going to be unfair to the operators, and if we don't figure enough production per hour, eventually we are going to lose the customer.

It may also be possible that our foremen or the operators were not aware of the most efficient method or shortcut of handling a particular piece of work and it follows that both foremen and operators will benefit if the management is able to show them some better method of handling the piece of work in question.

This type of educational work will help the whole business. And that means, for everyone concerned, a continuance of employment.

I would like to give you a little idea of how the printing business stands. Printers are not a wealthy lot—really. I recently looked at a Dun & Bradstreet rating of the one hundred leading industries, and the printing industry ranked about sixth in the number of people employed and in the amount invested in the business. BUT—they were right down at the bottom of the list when it came to profits. Not many printers out of every hundred ever become really successful and it is my belief that this is because this is such a difficult business to *know one's costs*.

How Much Can One Keep?

A printer is in business to make a profit. Suppose that he is doing some \$100,000 worth of business. Let's say his aim is to make 10 per cent net profit on this business, although I don't suppose that many printers make as high as 10 per cent. We have been in business over a quarter of a century, but I think this is the first year we will make as much as 10 per cent—if we do.

Consider the case of the "lucky" printer who is doing, we will say, a \$2,000,000 business that will return him a 10 per cent profit of \$200,000. Sounds like an awful lot of money, doesn't it?—and it is an awful lot of money until you begin to figure **HOW MUCH** of it the tax people are going to let him keep.

Now, as big a sum of money as \$10,000 might seem on \$100,000 (and speaking as a layman as regards cost accountancy) it has always occurred to me that we have thousands and thousands of jobs per year that might average thirty minutes or an hour per operation and if any employee were checked up because he took thirty-three minutes to do a thirty-minute job or one hour and six minutes to do a job which he could have done in one hour, this to me, if I were an employee, would look like splitting hairs and that somebody was there with a heavy heel on the back of my neck. Yet I think there are many here who are better at figures than I, but if we took an hour and six minutes on every job which should be done in an hour, that six minutes is 10 per cent off, and we would not make a cent. If anyone has any idea of challenging this statement, this is one thing I do know and would be willing to argue about until the cows come home.

(To be concluded in next issue)

MR. SMALL-CITY PRINTER:

Sell This Idea for a Printed Piece to Your Local Chamber of Commerce...

OR USE IT AS A PROMOTION PIECE OF YOUR OWN

● HERE IS a community-promotion folder idea picked up from a restaurant counter in an enterprising small city in Indiana. It's simple and wouldn't win any prizes for layout and typography, but it is an effective advertising idea . . . presenting ten good, sound reasons why almost anyone would find it satis-

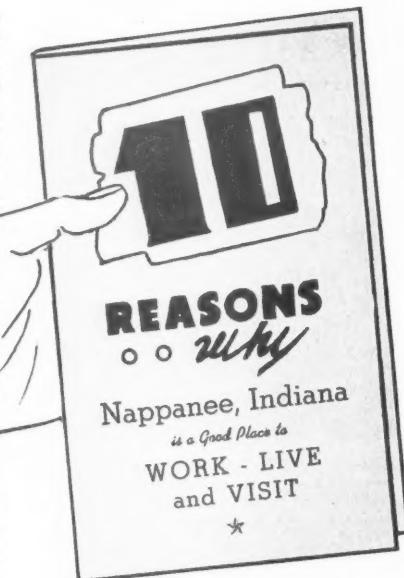
workers looking for a good place to work, or tourists in quest of places to visit, might be interested in your particular community.

What those reasons are, of course, will depend on your city's particular advantages. As a suggestion, here are a few of the "reasons why" advanced by the Nappanee Association of Commerce:

1. Big-town living with small-town expenses. A community geared for modern living for moderate people.

2. Served by several principal transportation routes. On the Baltimore & Ohio railroad. Located at

Cover of four-page, 5½- by 9-inch, black and red community promotion piece. Spread lists and amplifies reasons. Back page map shows town's location in relation to the surrounding territory



the junction of U. S. Highway 6 and State Highway 19. A C.A.A. airport is being developed.

3. The tax rates are nominal in Nappanee.

4. Nappanee has a modern public school system.

5. Nappanee has a diversification of social and religious organizations.

6. The corporate limits of the city include many fine residential and industrial sites.

On the back of the four-page, 5½- by 9-inch, two-color folder appears a map of the surrounding territory, showing transportation routes and the location of Nappanee in respect to major cities and other geographical points which are of particular interest.

Nappanee's selling efforts are commendable, but they are only basic. You and your Chamber of Commerce can start with an idea such as this and develop it as far as ingenuity and funds will permit.

If you sell the idea to a civic group, it means a nice order of printing for you as well as some advertising for you as a local business man. If you use the idea yourself, it will make an effective advertising piece for your business sure to pay future dividends. Either way you win—why not get busy developing the idea, now?

factory to work in, live in, or visit this particular locality.

It's an idea that you can sell to your local Chamber of Commerce (or similar civic-minded organization), Mr. Printer, or you can use it as an advertising piece for your own business. The cost of preparation can be extremely modest. Distribution can be made through local restaurants, the hotels, filling stations, tourist camps, *et cetera*, which places of business will be happy to distribute such pieces of advertising which are, of course, very definitely in their own interests.

"Ten Reasons" is only a suggested title for the piece. Perhaps there are a dozen, or twenty or more logical reasons why individuals with capital to invest, home-makers seeking a desirable place to live, dependable



THE

PRESSROOM

BY EUGENE ST. JOHN

Questions on pressroom problems will also be answered by mail if accompanied by a stamped envelope. Answers will be kept confidential if you so desire and declare

INK DRYING BY ABSORPTION AND OXIDATION

● When speaking of drying by absorption (penetration) and by oxidation, the term "drying" does not have its usual meaning; it has nothing whatever to do with the loss of water or moisture in the sense that a wet rag becomes dry on heating or exposure to strong currents of air. The drying of a wet object means the driving off of the water contained therein and of necessity results in a loss in weight.

In reference to the class of inks under discussion, the term drying means that a liquid oil (say, linseed oil) absorbs oxygen gas from the air and gradually changes from the liquid to a solid state, *this change being accompanied by a steady increase in weight until it will be found that when the change from the liquid to the solid form is finished, the oil has increased some 16 to 17 per cent in weight*, due to the absorption of oxygen. The function of a "drying" oil like linseed when used as a vehicle for inks is to form a skin which will bind and consolidate the pigment upon the surface to which it is applied.

It is customary to say that the type of inks under discussion, used by the great majority of printers, "dry" in two ways: absorption by or penetration into the paper, and by oxidation.

One- and Two-Sided Drying

Since it is the action of oxygen that changes the vehicle to a solid, absorption or penetration is merely the means to an end. The true distinction between absorption (penetration) and oxidation drying is that the former is oxidation beneath and the latter oxidation on the surface. Absorption drying of printing inks differs from absorption of writing fluid by a blotter although both are examples of capillary action.

Perhaps the distinction between absorption solidification of the ve-

hicle and oxidation solidification of it is most clearly defined in the statement that the former is a two- and the latter a one-sided drying. In drying by oxidation the oxygen reaches the ink film on the surface of the paper from above, and from both above and beneath in absorption drying.

Paper consists of minute cellulose fibers felted and bonded by a sizing to make a continuous contact of cellulose to cellulose throughout the sheet with minute spaces between the fibers. These spaces are termed openings, air chambers, channels, interstices, and capillaries.

Structure of Cellulose Fibers

These interfiber spaces are of irregular shape and size and arranged without order. Printing is on a fabric largely composed of air when paper is the ground. It has been said that paper is half air, which is true of some but not all papers. It is true of book papers of high bulk and newsprint. Bond and book papers of medium bulk are about one-third air, and the same papers of low bulk contain one-fourth air.

Under the laws of capillary flow, liquids and gases such as oxygen can pass through these interfiber spaces. Moisture (water vapor) is transmitted by the pores of the fibers since cellulose fibers are hygroscopic and can actually remove moisture from the air.

Besides they are oil-repellent and it is to minimize this quality as well as to bond the fibers that from one to two per cent of rosin size is added to the furnish in the beater. An engine-sized paper need not have less absorbency for printing ink than an unsized one. Under the microscope no difference between sized and unsized fibers of the same paper can be seen. Sized paper is more porous to air than the unsized.

Absorptiveness to ink is determined more by the finish, the fibers, and loading of clay or chalk, the beating, and paper machine conditions than by rosin sizing. Adverse to absorptiveness is excessive calendering.

The absorption solidification of inks depends principally on the passage of vehicle from one capillary system, that of the pigment particles of the ink, to another, that of the paper. The capillary attraction of the pigment particles for their vehicle should balance that of the paper for the vehicle.

Absorption or penetration drying depends to a considerable extent on the interfiber spaces to hold the ink since the surface of cellulose fiber is repellent to the oil-varnish vehicle. In highly glazed surfaces the fibers are forced closer together on the surface and the interfiber space is reduced too much or does not exist at all, while in rough surfaces the air space between fibers is too great. The ideal surface for ink reception is a close, level one, presenting the correct amount of interfiber space distributed uniformly because of the fine structure of the individual fibers. Such a paper has long been typified by book papers of British manufacture from esparto grass fibers.

Little Penetration of Surface

By absorption, the film of ink on the surface of the sheet is extended and thinned, leaving less varnish on the surface to be dried from above while the drying proceeds beneath the surface. Absorption is a definite aid to prompt setting as well as prompt drying.

On such papers as have been protein-sized, the coating of gelatin is repellent to the ink vehicle of oil-varnish. Since there is very little penetration of the surface, the drying is on the surface by oxidation from above almost entirely. The highest grades of bonds and ledgers belong to this class of papers.

Many other papers, while not tub-sized in gelatin like the foregoing, still have a coating of starch, glue, or casein mixed with clay or chalk, a coating which greatly diminishes absorptive quality. Enamel-coated book for use with high gloss inks greatly diminishes the penetration of the vehicle supplying the gloss.

When to Use Strong Drier

Various kinds of covers and bonds are so made and coated (but not with a protein size) as to diminish penetration considerably, but not all to the same extent as the protein-sized writings and enamel-coated for high gloss inks.

On these papers that dry principally but not entirely on the surface inks heavy in body work best since a soft ink unable to penetrate would spread and squash.

Since drying is principally from above, a stronger drier should be employed. This does not necessarily mean more drier. The strength of the drier depends on its metal content (cobalt, lead, manganese) and a powerful drier is known as a "heavy" drier.

The part that the free access of oxygen to the ink plays in drying is illustrated when printing absolute solids on the face of the sheet, completely sealing this surface. With proper care little trouble with drying need be expected. If absolute solids must be printed on the reverse side of this sealed sheet, drying will be retarded because oxygen is barred from the interior of the sheet and drying can be only on the surface with a "heavy" drier. It is customary also to wind frequently and repile to aid the access of oxygen to the ink.

★ ★ ★

TISSUE DRESS PATTERNS

Will you please tell us several manufacturers of printing machines which make the types of machines used by makers of tissue patterns for women's garments.

Some of this work is produced via offset-lith and some of it by letter-press, all on rotary presses.

STRIKE-INS ON OFFSET PRESS

We are interested in learning whether any concern has ever developed a perforator to be used on an offset press. We have heard of firms doing perforating on their offset presses but we have never come across any press featuring this equipment.

There are many strike-ins, including perforating, possible on offset presses. Consult the manufacturer of your presses.

(Continued in third column next page)

Nation's Printing Business



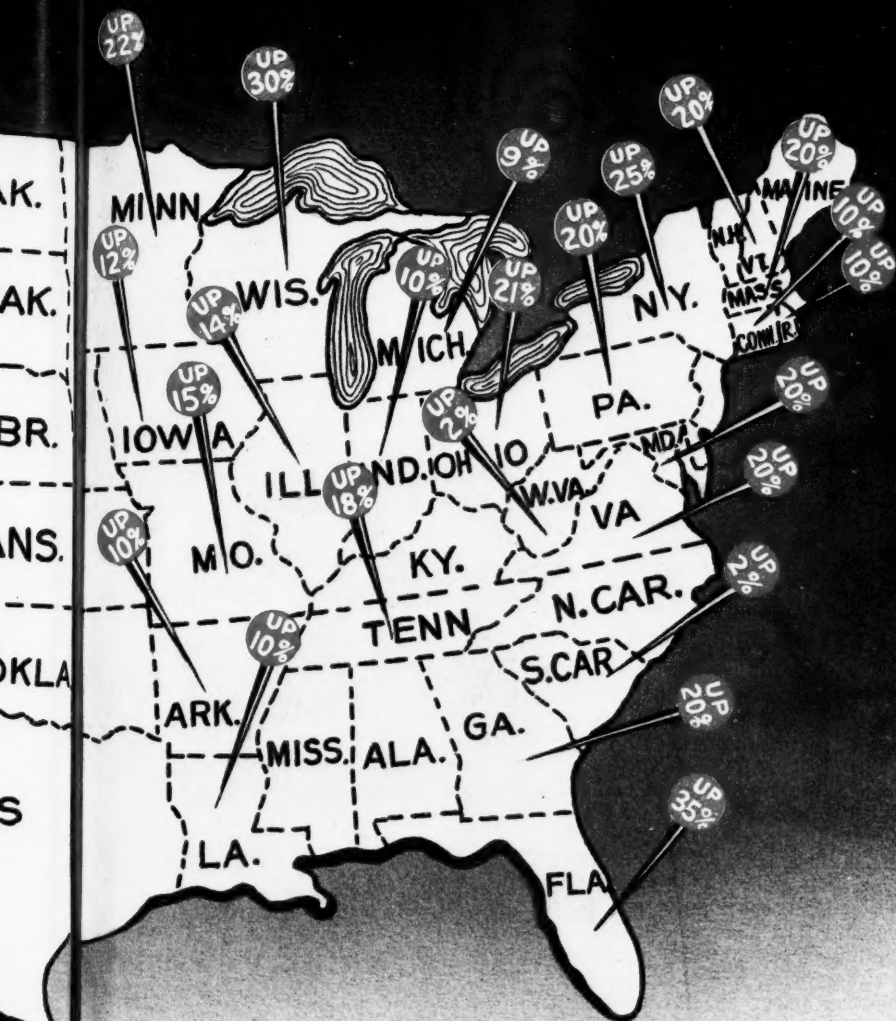
REPORTS from a representative group of the leading printers in important printing areas of the United States (according to a survey just concluded by THE INLAND PRINTER) indicate that the nation's printing business picture was very bright for the year just ended.

With but a few exceptions, almost all printers reported sizable gains in their dollar volume of business in 1947 as compared with that for 1946. In a few isolated instances, percentages of increase were fan-

tastic (one firm reporting 86 per cent more business in 1947 than in the preceding year). On the whole figures were less sensational, however, the average increase for the thirty-two states reporting being slightly over 17 per cent.

Most firms were quick to point out that increases in dollar volume (on which basis the above map chart was prepared) were in part due to increased labor and material costs, and do not wholly represent an increase in printing volume.

Picture Was Bright in 1947



Even so, most printers seemed well pleased with the way printing volume held up in the face of rising printing costs.

A few printers stated that their volume of printing and dollar sales volume could have been increased even more if an ample supply of labor and paper had been available. Others failed to attain anticipated increases because soaring printing prices discouraged many customers who would otherwise have placed sizable orders.

Most firms reporting were optimistic about 1948 printing business, but few felt that the percentage of increase in 1948 over 1947 figures would equal the gains made in 1947 sales as compared with 1946.

While the figures in the map chart are not indicative of the average increases of all firms in the industry, they do represent the general trend. And as such they present an encouragingly bright picture of the nation's printing business for 1947.

FLOCKING SUPPLIES

We are interested in obtaining information regarding the application of flocking material. Also, we are interested in locating sources of supply for this material.

Through the medium of a suitable adhesive, flock of cotton, rayon, or wool is applied to inexpensive base paper, cardboard, or fabric. Methods of application at present include spraying, agitating, sifting, masking, and screening. In addition to stock hues an extensive variety of colors to order may be obtained from suppliers. An infinite variety of effects may be secured.

DOLLY TURNABLES

Can you give us the source of supply of a small plate or disc that is used to move rolls of newsprint paper? These plates are placed on the floor and have a hump in them so that a roll of newsprint can be rolled upon one and then turned in the direction desired.

These small special trucks are known as dolly turntables to distinguish them from the ordinary dollies (small low trucks) on which rolls of various kinds of paper are handily conveyed to rotary presses; pushing on the roll drives the dolly forward on its wheels.

REMARKABLE ADHESIVE

We are trying to find a manufacturer who can furnish us with a glue that is used on shirt bands. We understand that this glue is plastic. It will not stick except when placed together and comes apart readily, similar to adhesive tape.

This adhesive is in the synthetic resin-wax class. The opposite sides of a strip of paper (band) are tipped for about two inches from the ends with a coating of this adhesive and when the two coated tips are pressed together they adhere firmly without the use of either moisture or heat. This adhesive sticks to nothing but itself, not even the fingers of the user. It may be used more than once and may be peeled off in the same manner as the old adhesive plaster.

INITIALS ON PLAYING CARDS

We would like to have some information on the method used in printing initials on the backs of playing cards. What inks are used and what method is used for drying?

In the case of a large order, the initials form could be multiplied and printed a number up before the large sheet is varnished and finally die-cut. Generally these imprinting jobs are run a card at a time on an open press which permits laying the cards out to dry dove-tailed or shingle-wise. As the imprinting is done on a varnished surface, a special ink which will

"take" on this surface is used. As the imprinting ink will be subjected to considerable friction, it must be of the non-scratch, non-rub kind. This sort of ink dries quickly and well but in imprinting very careful watch must be kept against any offset mark which would serve as a distinguishing mark.

PREMAKEREADY IN PROCESS WORK

We have been having quite a loss of time in makeready between colors in four-color process work. Can you suggest something which will obviate this? Can the separate forms be prepared and in shape to be put on the press as soon as the previous color form has been run, including the makeready and register?

There is standard equipment for line-up and register of process plates in the composing room. The modern proof press will take a form around 24 by 24 inches. It may be made ready on the proof press and the same makeready again used on job cylinder presses. Premakeready for larger cylinder presses is also practiced to advantage by dividing the larger form into sections within the capacity of the proof press. The two foregoing steps take care of line-up and register and over-all makeready. For the selective over-laying necessary for the gradation in tone of the plates, mechanical cut overlays are time-saving and economical. If these are not at hand, folio or hand-cut ply overlays may be made in advance.

NUMBERING AND PERFORATING

We are having a discussion in our plant relative to the merits of doing a certain job one way or the other. Our problem is this: Should numbered forms be perforated before or after printing? Our press equipment for this work consists of job cylinder and automatic platen presses. Our bindery equipment consists of a round-hole rotary perforator, a slot-hole rotary perforator, and a straight-line round-hole perforator. When the stock is perforated in the bindery first, there is a great deal of trouble with the perforated sheets sticking together, thereby making it difficult for the feeding devices to take the sheets through the press. There is, of course, some difficulty with the perforations jumping around a little bit, which probably is impossible to avoid. When the sheets are printed before perforating, then the bindery claims that they have to perforate each sheet separately in order to get the numbers back in order. No doubt you have some suggestions of value to us in handling this type of work.

The three presses you name have face-up delivery (printed side up). On the hand-fed (open) platens, the operator turns the sheet over and

lays it face down on the delivery table to keep the numbers in order and on cylinder presses with fly delivery the same end is obtained with face-down delivery. Since the presses with face-up delivery only are not equipped to turn the sheets over, the way around is to use numbering machines that will number backward down to the initial number. By this arrangement, the bindery is able to perforate a number of sheets at a time.

However, the perforated sheets are automatically fed regularly in many pressrooms by rolling out the lifts both lengthwise and crosswise, winding thoroughly and jogging the sheets to the two guide edges before feeding. Static can make trouble in winter when picked up on the rotary perforators. Some spray the sheets first with water vapor from a spray gun (anti-off-set) so that the pressroom trouble of sheet separation will not be increased by static from perforating previously done.

PERFUMED STATIONERY

We are very anxious to know if you can help us. We have received orders for stationery for an organization of beauty parlors which wants its cards and stationery perfumed. The odor is quite outstanding. We would appreciate any help you can give us as to how to print this material.

Printing proceeds as usual after certain favorable conditions have been met. Your inkmaker will give you all the details. A small percentage of aromatic compound is added to an ink which does not dry hard on the surface of an absorbent paper. This combination permits carrying full color and prolonged retention of the odor. An outstanding combination is perfumed ink on newsprint which absorbs an ink that never dries, almost as freely as blotting paper absorbs writing fluid. Your paper dealer can give you names of stationery paper and cards that have been found most favorable for use in printing with a perfumed ink.

In case your customer is not agreeable to the use of a soft stock with limited sizing it will not be possible to supply stationery that will retain the odor as long as absorbent stock, in which case a way around is to print fewer copies and make more frequent runs, without matching the strong odor held by absorbent papers. This is a specialty limited to certain inks and papers for best possible results. The printed sheets should not be stored in dry, hot spaces but rather where it is cool and damp.

HERE ARE THE Prize Winners



in the *Typographic Clinic Contest*

★ Judges in THE INLAND PRINTER'S Typographic Clinic Contest, which closed December 1, have gone into a huddle with designs and accompanying criticisms submitted and come up with these prize winners:



Ben Wiley
Springfield, Ill.



John F. Bethune
Berkeley, Calif.



John F. Bethune
Berkeley, Calif.

Runners-up in the contest were Jack L. Goldstein, of Philadelphia, and Louis W. Werner, of Brooklyn. Comments on the faults of the original and merits of the reset designs were interesting and varied.

To the prize winners, runners-up, and all who took part in the contest, THE INLAND PRINTER extends sincere thanks for their interest and for their numerous entries.

On the facing page you may see the first-prize-winning entry, by Mr. Wiley. In later issues, look for Mr. Bethune's award-winning designs and accompanying comments.

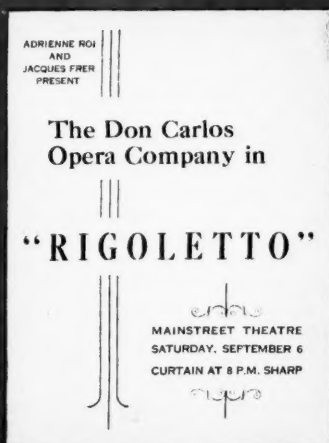
★ ★ ★ ★ ★ ★ ★

THE INLAND PRINTER for January, 1948

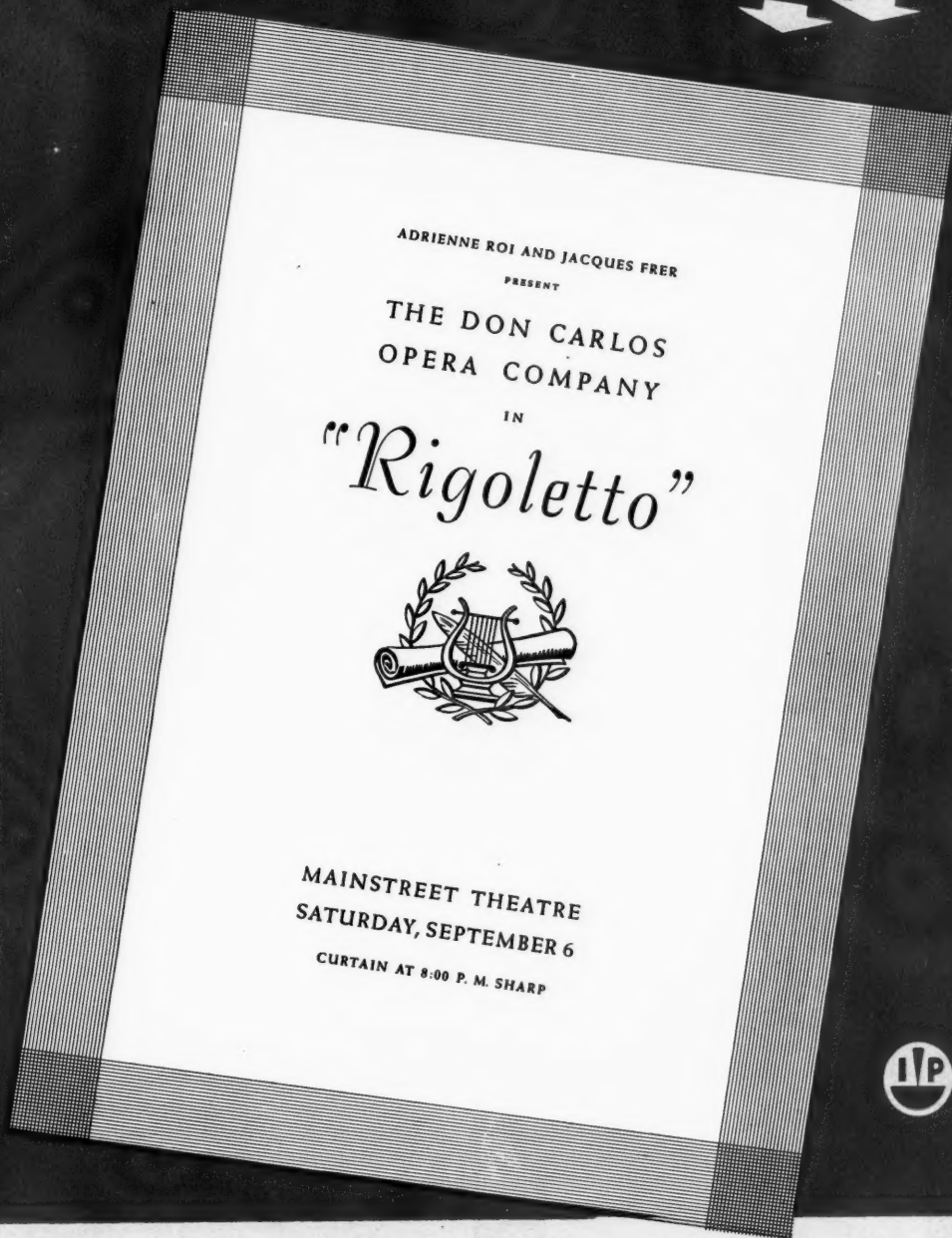
First Prize Typographic Clinic



Submitted by
BEN WILEY
Springfield, Ill.



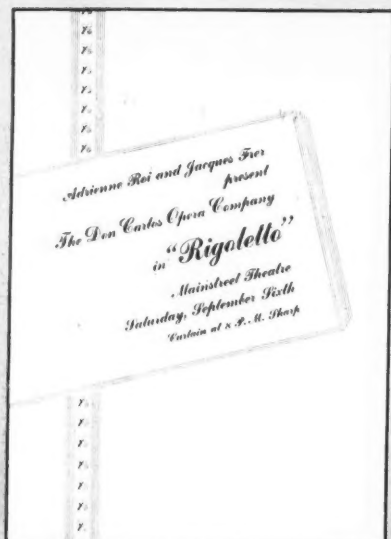
ORIGINAL COVER



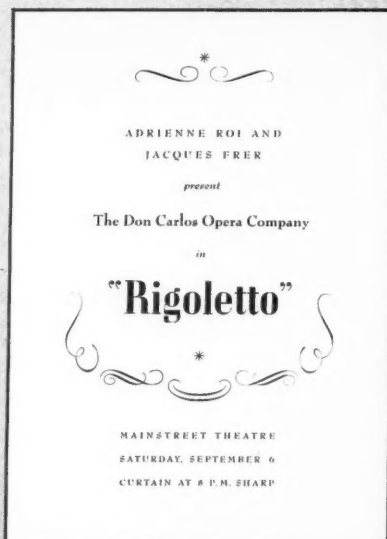
Here are Mr. Wiley's Comments

* Perhaps there was a time when the style of the original program cover would have been acceptable. Today, however, such creations are passé. Distribution of white space is none too good, and the ornamentation is quite foreign to the subject matter. A fault in the original cover we see many times today is that of the name of the company overshadowing the title of the opera. The company name is smaller than the title "Rigoletto" but the

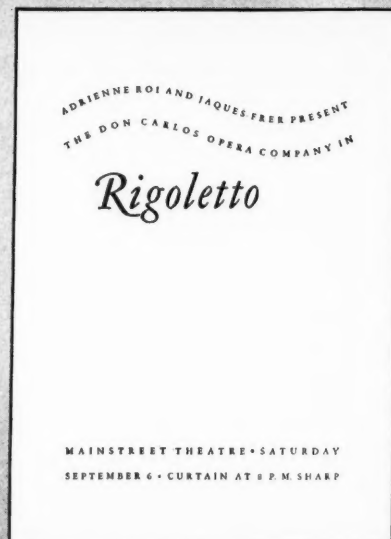
style of letter is the reason for the lack of emphasis. In the redesigned cover the style has been brought up to date. Two styles of type obtain contrast by letter shape rather than by boldness. The entire piece has been handled in lighter tone quality in keeping with the dignity of the opera. Much is added to the appearance of the reset design by nice letterspacing which, in modern language, "makes it sing."



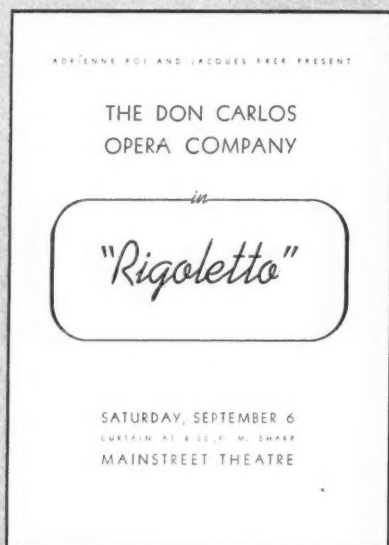
JACK L. GOLDSTEIN
Philadelphia



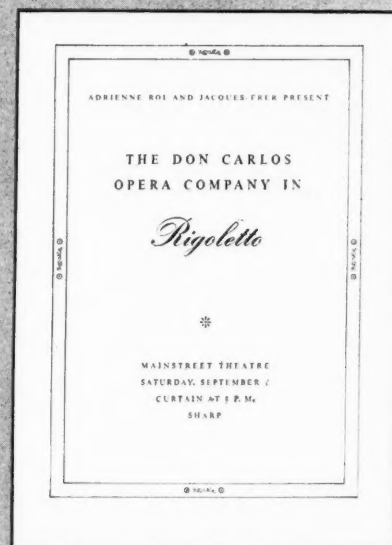
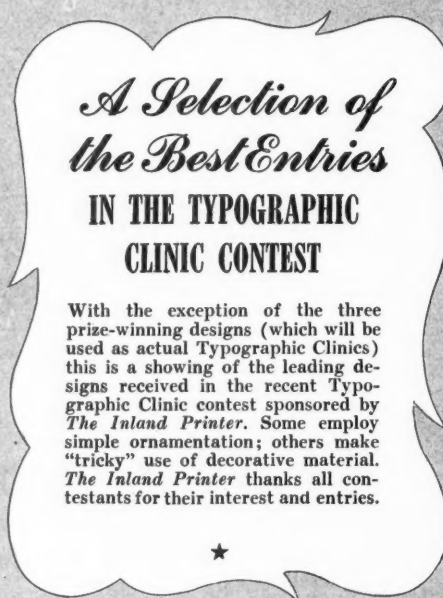
G. H. PETTY
Indianapolis



NILS BUSKVIST
Gothenburg, Sweden



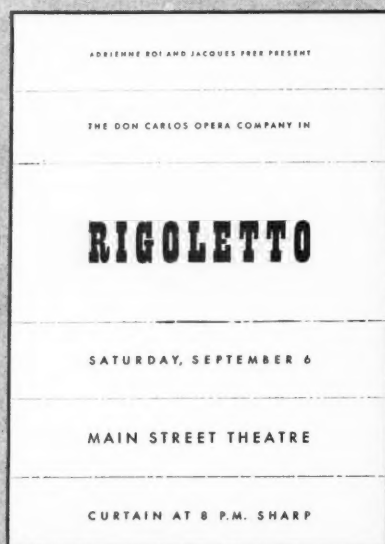
HJALMAR ERICKSON
Minneapolis



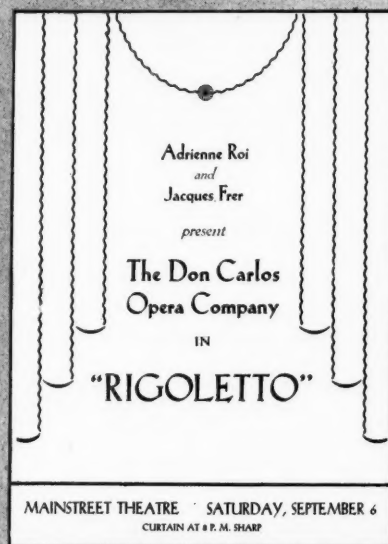
JORGEN HEGERLUND
Copenhagen, Denmark



ELMER AXELSON
Denver



J. E. HELMER
Quincy, Illinois



LOUIS W. WERNER
Brooklyn

"Employee Handbook is Worth Every Cent We Spent," Enthusiastic Printer Reports

By David Markstein

● **PLAGUED** by high employee turnover during the war, and by a consequent difficulty in orienting the shop's employees to its policies and the privileges, prerogatives, and responsibilities of working for him, a printer in a medium-sized southern city tried a gimmick that is standard practice with some manufacturers and stores—he prepared and distributed an employee handbook outlining general facts about printing and a number of particular facts about his plant. The handbook proved such a success that a few months ago it was revised to fit the postwar picture and reissued to the shop's employees, old and new.

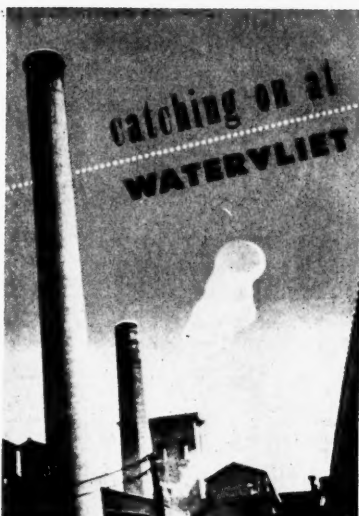
This printer found that by making his booklet interesting, all the employees read it. That spared him repetitious indoctrination of a constantly turning over group of green hands and even cut down the high wartime turnover slightly, and thus helped in reducing the shop's tremendous overhead.

Train and Indoctrinate

"The cost of putting out the employees handbook wasn't small," he reports, "but every cent we spent was well spent because it made possible a much greater saving in time, effort, and the expense of handling inexperienced floor men, pressmen, linotypers, and other employees. Our labor turnover was cut down somewhat because the factor of wartime 'floaters'—those who moved from job to job as the notion hit them—was reduced. Employees were made just a little prouder (if the word may be excused) to be working for us. And the expensive process of constantly teaching basic printing facts, as well as the policies of the shop, was made less expensive because we were able to give indoctrination to each new worker in a package—the employee handbook."

What exactly, is an employee handbook, and how may the average printer adapt it to his own company to get results something like those of the southern printer who cut down both operating cost and labor turnover?

An employee manual is a training, indoctrination, and selling device. Its functions are to sell the employee on the desirability of working for the particular shop and on the shop's employee benefits, if any; teach him a few facts and acquaint



Cover of elaborate, attractive two-color (blue and black) 36-page, 5- by 7-inch page size employee handbook prepared by a Wisconsin paper mill

him with the company's policies; and act as a reference book where the answers to most daily problems that crop up regularly in printing may be found.

The manual, or handbook as it is sometimes more accurately called, may be anything from a pretentious printed job to an unassuming mimeographed sheet.

EDITOR'S NOTE: Not only is an employee handbook an excellent idea for the printer's own organization, but selling his customers and prospective customers on the merits of a booklet to meet their particular needs means interesting as well as profitable business for the printer.

Naturally, the more thorough the job and the better it is produced, the more it will accomplish. Where the mimeographed form might be looked at once, then crumpled and thrown away, a handsome brochure is likely to be kept and referred to as problems and questions crop up. The southern printer who reported such success with his wartime and postwar sales force handbooks put out a relatively expensive printed manual, but he found that it was worth every cent he spent on it.

Optional Departments

What should a manual for the printing shop force contain?

Most printers and other business men who have issued the employee handbooks will agree that certain things are essential. These are: a friendly greeting and explanation of the book's purpose; something about the company's background and also about printing itself; the shop's selling and employee policies; the benefits available to employees, if any (such as insurance, hospitalization, income tax aid); wages and commissions; plant regulations; and avenues that are open for registering complaints.

The more or less optional departments include an employee health chapter; "good housekeeping" tips; minor employee policies about such matters as time off for afternoon and morning coffee.

The standard practice among all those who have had successful experience with employee handbooks is to open with a "greeting" signed by the shop's owner or operating head. This greeting should explain the purpose of the book, and point out why it is to be kept and how it is to be used for future reference. The tone should be a friendly one and, wherever possible, the book's use should be explained in terms of how the employee will benefit.

The company's history, its background, and position in the community is important, since one of the purposes of an employee manual is to make the employee proud of the company for which he works. This

sort of pride cannot be generated, however, by mere boasting or even by pointing out actual facts in a boasting tone. The chapter, page, or paragraph on company background should merely present the favorable facts and leave the conclusions to be drawn from them to the employee's own intelligence.

A clear presentation of the company's policies is important for two reasons. It tells the new worker—and even the older one—exactly where he stands in an over-all company pattern, and it does so in black and white. It will serve as a future reference text.

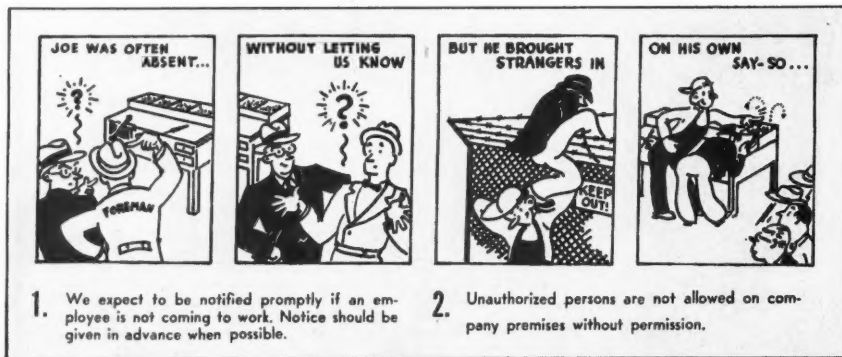
The temptation to brag, or to deviate just a little from the absolute truth of the wage set-up—especially when it comes to a discussion of advancement opportunities—is great. It should be put aside. There are few fools working in printing shops today, and they are the only ones likely to be duped by statements on advancement opportunities which conflict with the truth that they can see about them.

The listing of do's, don'ts, and the other company regulations is a ticklish matter. Not many young men cared for the discipline of the army and navy, or there would have

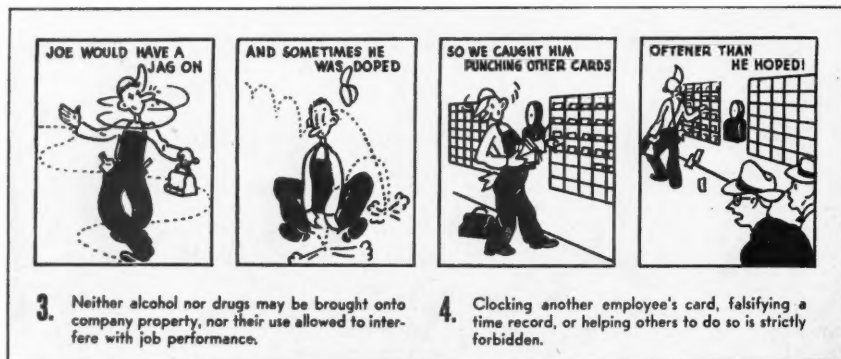
very important information to include in the employee handbook.

In preparing the actual working of the manual it is imperative that a dry, gobbledygook, legalistic style be avoided, and that the copy be made readable. Observe the spare-time reading habits of employees, the books, magazines, and newspapers they take with them to read on the way home. Without exception, these are popular, best-seller publications written for wide appeal. In newspapers, the comic and sports pages are the most popular. So if the employee manual is to achieve a readership at least comparable to that of the employees' off-time reading, it must be written in a similar easy-to-see and enjoyable manner.

The comic pages that have such avid readership offer a wonderful technique for the printer who has chosen to drive all his handbook's pointers home with cartoon-style



Syndicated employee handbook, prepared by MacAllister Publications, New York, employs humor to present "rules and regulations" story. Cartoon at right, from cover; typical pages, above and below



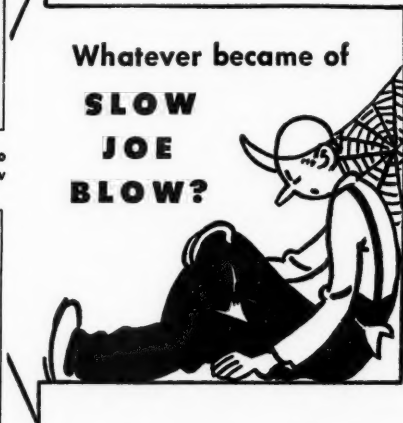
Both shop policies and employment policies should be presented. Under the employee relations policies should be listed all benefits made available by the company with the advantages to be had from these benefits, and a listing of how to take advantage of them.

It's no secret that printers work, not for love of the manager or of the business, but for money. So a frank presentation of the money question becomes an integral part of the employee manual. The base wages, premiums, and chances for monetary advancement come under this heading.

been no need of a draft. The thing they disliked—the tight discipline—they are not likely to be crazy about in a civilian job. Regulations are necessary and they often act for the good of the individual employee. So he should be told this. Every don't should be accompanied by a "why" to counteract, as far as possible, the natural reaction to being ordered about.

Along with a list of the company regulations should be included the means by which an employee who has legitimate reason to be dissatisfied with any part of his set-up may register his gripe. This is always

Whatever became of SLOW JOE BLOW?



line drawings. *Life*, *Look*, and all the other picture magazines suggest another effective style, the use of photographs.

Should pictures be decided upon, it is wise to see that each has action. If a rule is to be illustrated, an employee might be shown doing it the right way.

How should the handbook be distributed? One way found effective by large printers is to present them personally at a special meeting of all hands, with an explanation of the purposes and uses of the book, delivered by an executive.

The books can be mailed (at book rate) to the employees' homes. Or they can be distributed with regular pay checks. However the distribution is done, there should be some word of personal explanation in advance from a department manager if not from the boss himself.

ACCURATE JOB OF COST ANALYSIS REQUIRES FOUR TYPES OF FIGURES

By A. C. Kiechlin

● THIS CHAOTIC period has ushered in new problems which will require a better job of cost analysis than the printer was wont to give this phase of management in the past and the procedure will differ from that which has gone before.

Before the war, the printer who analyzed his costs used one group of figures as a yardstick, usually selecting all these figures from one source, such as experience figures for a prior period. These he usually called standard costs and compared them with current costs to get perspective of operating efficiency.

Today, the yardstick is built of a variety of figures, in other words, a synthetic unit of measurement. Cost analysis before the war was largely analytical, breaking down prior-period figures for comparison with current figures. Today, it is first a synthetic process, building up standard costs from various types of costs, a more complex procedure better suited to these very complex times, then using the result as a yardstick to gauge current results.

Cost analysis is born of comparison. Unless one has a yardstick with which to measure current operations, he lacks perspective and unless the yardstick is a good one, his judgment will be bad. What is the most dependable method to be used when analyzing the results of current business operations? That is a question the printer must decide for himself to a large extent. He can acquire the ability and facility to construct a dependable yardstick and use it intelligently to measure current results only if he keeps his figures under his orbs all the time.

Use Sound Judgment

Cost analysis requires sound judgment, a characteristic that comes through experience and inherited mother wit. The purchase of journals and ledgers, stock control cards and other recording devices will not be the Aladdin lamp to wise management. The printer must burn the midnight oil over his operating figures to manage wisely. Those who have done little in the field of cost analysis to date, and their number is legion, will find that it will take some time to acquire a sound perspective but the effort is worth-

while, and absolutely essential today, probably the most critical era in our business history.

No business man can by-pass a deep study of his operating results from now on and earn maximum profit. Those who haven't the flair for such work, or just can't get the hang of it, may go along in the same old-fashioned way, but they will have a much harder time keeping out of a foxhole than their predecessors during the prewar years of normalcy.

Business for a long time will be buffeted from without and from within by economic, governmental, and the international gremlins, by group action of one kind or another, which directly or indirectly will affect costs and profits. Trying to follow the old way of life in this new

era, to prepare operating figures periodically just to see how much profit was made, without going behind the figures to find out why the profit was earned, and then planning for business betterment, just won't be cricket any longer.

What yardsticks should a printer use today to analyze his current position? His new measuring device should be constructed from four different types of figures: experience, average, budgeted, and group costs, the latter provided by outside agencies, trade associations, research organizations, and the like. The dependable yardstick takes all of these figures into consideration. The printer should have a comprehensive idea of what the figures are in order to appraise them properly before setting up his standards for comparative analysis of current figures. There is much misunderstanding about the use of these figures in business analysis so we offer this counsel to clear the mist.

When using experience figures covering a prior period as checks against current figures, the printer must be sure that they cover a period when similar conditions existed. In these hectic times it is hardly likely that a former period will provide comparative material of value, unless the three other type figures are taken into consideration, because conditions this year differ from what they were last year or during the war years.

Check Seasonal Periods

Seasonal variations enter the picture, too. Many printers erroneously use prior-month or prior-quarter figures against which to check results of a current month or quarter. This may be satisfactory in businesses where there are no seasonal spurts and slumps. To compare slow-season figures with the busy-season figures is sure to show discrepancies. Overhead ratios are off in slack periods, although dollars-and-cents results may not vary greatly if the printer does a good job of cost control, because overhead is more or less fixed in and out of season.

On the other hand, cost of sales will show variances, not so much in ratios as in dollars-and-cents

Best Sources of Advertising Ideas

Labeled by Henry Hoke, chairman of the research committee of the Direct Mail Advertising Association, as "the largest and most complete survey ever conducted in the Direct Mail," the report of the survey entitled "How Direct Mail Is Planned," appears in the October issue of *The Reporter of Direct Mail Advertising* and abstracted by *Graphic Arts Summary*. It consists of twenty-six questions and answers. Of special interest is Question Twenty-six: "Could you give us an opinion on the best sources of advertising ideas? How do you get them? How do you keep up to date?" Here are the leading twelve of the twenty-two classified answers:

SOURCES	VOTES
Reading trade papers.....	231
Studying advertising of competitors...	139
By contacting customers.....	132
By asking salesmen.....	98
By general reading.....	59
By watching trade trends.....	38
By attending conventions and meetings	34
From advertising agency.....	31
Working in field or "on firing line"...	27
By personal surveys.....	26
From our trade association.....	24
From our own organizations.....	25

—Share Your Knowledge Review

values, assuming that the printer does not cut prices to stimulate sales when his business is off the beam. The usual procedure is to check seasonal periods against the prior-period high and low spots.

Where the business movement is about the same from month to month, figures for a prior month or quarter, called experience figures, may be used as guides on current operations, but few businesses are in this category. The prior-month or prior-quarter figures are useful, however, in compiling a yardstick, even where volume varies, because they are links in the chain that reveal the business trend, whether upward or downward, at an even pace or an erratic fluctuation, and they disclose changes in trends or changes in any item of cost.

Be Sure of Figures

What we are emphasizing in this article is the fallacy of depending upon only one set of comparative figures today. Business is in such a complex state that the printer must analyze current results from many angles, hence he must take into consideration various classifications of figures over different periods before fixing standards.

Average figures may cover any prior period, but the hazard in their use is that the period covered will not produce the same results as the period for which they will serve as yardsticks. Obviously, the ratios recorded for a depression period will vary with the ratios shown for a prosperous period. Results won't jibe because they cannot jibe. Pre-war figures are poor yardsticks to use today, figures covering operations during the war are not likely to provide a dependable yardstick in this postwar period.

This means that you must make certain when using average figures that the conditions covering both periods are similar. In stable times, the business man may use a yardstick covering a longer period. Some printers, in stable prewar years, used average figures covering three to five years prior to gauge current operations. This is poor practice today. Instead, fix the month rather than the year as the unit of time, from three to twelve months prior, depending upon the degree of stability and instability and your own position.

Budgeted figures are constructed after a review of actual experience figures, average and group figures from outside sources, plus a forecast of the sales for a forthcoming period. If subsequent events indi-

cate that the budget needs to be changed to meet some conditions not foreseen when prepared, the changes are made. We never heard of a business man matching budgetary figures with actual results, so the budget should be flexible.

The printer must project himself into the near future and make some forecast of things to come, otherwise the standard costs he uses as measurements of current results will more than likely be fallacious because costs vary with sales volume and other economic factors. Even if the printer cannot predict with precision, he will set up better standards if he turns his common sense to prophecy before compiling.

The group figures are provided by outside sources, usually from men in the same field of endeavor, but to be of value at all, the analyst should make sure that the group figures he uses were compiled from the records of printers with similar volume, working under similar conditions, and in territories of similar population. Many printers err here, comparing their figures with those of other printers whose volume of sales may differ substantially, who haven't the same operating problems, and are in cities where the population is smaller or larger. Cost ratios differ with these important variations so the group figures may provide some misleading standards if used thoughtlessly.

Much in business is an estimate. That's why cost analysis is so important. It minimizes the risk if the yardstick used is dependable. The use of standards synthetically constructed of other type costs for the purpose of comparative analysis is born largely of experience and a consistent study of operating results. No two printers, because of their varying problems, will use the same standards to gauge current operations, although they should give consideration to the counsel given in this article on the preparation and use of comparative figures when analyzing current results.

Combination Measurement

The big thing to remember is that cost analysis is not just a matter of comparing this month's figures with last month's or this year's with last year's because there are too many variants in the business process today. The yardstick against which current results should be analyzed is a combination measurement constructed from various classifications of figures, a printer appraising them all before grading himself on current performance.

Make comparative studies monthly and in time you will become quite proficient in devising measurements of operating efficiency and will be able to do a topflight job of cost analysis. You will be amply repaid for the work you put into it.



This Was a Nice Job for Some Printer

When the Sheraton Corporation of America, Boston, Massachusetts (which operates hotels in twenty-one cities), ordered the above two-color folders and accompanying identification cards, some printer received a nice order. Chain hotels, chain filling stations, garages, and other such groups are logical users of this type of printing. In itself, the set represents a desirable job of printing, but, more important, it might be the entering wedge for a considerable volume of work. Passing up any opportunities in your town?



Edward M. Krech is the director of purchases for the J. M. Huber Corporation, manufacturer of ink



Fred E. Cover, Intertype Corporation sales representative in Colorado, Wyoming and South Dakota



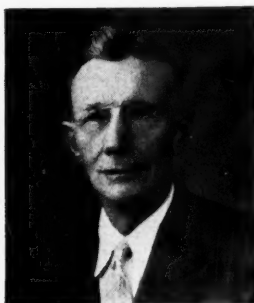
Vice-president of Magill-Weinsheimer Company, Robert Ritter, former Assistant Public Printer



Paul Bennett, Linotype Company, speaking at Utica District Craftsmen Club. Listeners, from left: Norman Kimball, Howard Coggeshall, John Sheideman, Alfred Peters, Bill Crabtree



David C. Atchison, sales representative for Roberts & Porter Incorporated in New York area



Frank Graeber, general production manager of the Graeber Stringing and Wiring Machine Company



George S. Dively, who became president of Harris-Seybold Company, succeeding A. Stull Harris



Reunion at Mount Pleasant Press, J. Horace McFarland Company, from left: Frank A. Eyler, F. Irvin Richardson, Harry C. Knouse, Perry R. Long, J. Frank Hartmire, Robert M. Keubler



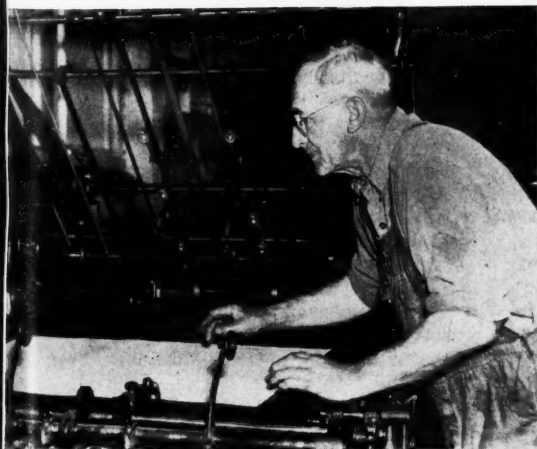
LEFT: Honored for long service with Kimberly-Clark, Richard Roudebush (second from left) and William DeBruin (third from left). Ernest Mahler is on left; President Cola C. Parker on right

PEOPLE

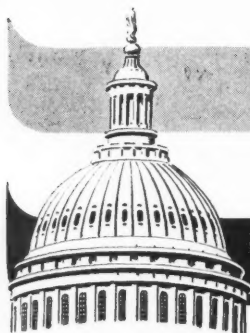
Two Printing House Craftsmen: Chester Klein, Cleveland, speaking. In the foreground: Addis W. Dempsey, Boston



LEFT: Stanford R. Rice, head pressman for Emporia Daily Gazette, recently retired after forty-one years there



LEFT: Officers of Young Printing Executives Club of New York, left to right, seated: Edward S. Davis, Jr., vice-president; Robert J. Judge, president; John S. Sherdon, executive secretary. Standing, Harold Fish, treasurer, and George Reinfeld, Jr., secretary



THE GRAPHIC ★ ARTS IN ★ WASHINGTON

By Larston D. Farrar

●THE burgeoning strife between publishers and the printer-members of the International Typographical Union is still the front-page news throughout the nation.

Developments are coming so fast—and from so many different directions—it's hard to keep track of them. Representative Hartley, one of the co-authors of the Taft-Hartley bill, which helped cause a lot of the strife, has appointed a House subcommittee to "investigate" the dispute in a number of cities. Senator Taft, the other co-author of the act, warns publishers not to sign any closed-shop agreements, unless they want to be charged with unfair labor acts.

Throughout the nation, locals of the ITU have reacted differently to employer stiffness. In several cities, notably Norristown, Pennsylvania, the printers capitulated after only a short strike and accepted an open shop with a small increase in base pay. In other cities, highly organized unions seemed determined to carry through and walk out, even though past relations with publishers have been just about perfect. This was the case in Washington, D. C., where neither side wanted a strike, but one seemed in the offing at year's end because the printers couldn't get a closed-shop contract.

On Way to Supreme Court

Statements by the American Newspaper Publishers' Association and other employer groups were met by counter-statements from union leaders. Internecine warfare in the ITU itself cropped out in a number of places, especially in Akron, Ohio.

Publishers in Chicago and in some fifteen other cities went ahead publishing, despite printer strikes, with the photoengraving process. Matter of fact, some publishers taunted printers by saying that eventually they may use the new makeshift process on a regular basis and let the linotypers go to Guinea.

Meanwhile, in Washington, the National Labor Relations Board has started hearings on charges of unfair labor practices brought against the ITU by the ANPA and other employer groups. It seemed certain that the whole conflict would end up in the U. S. Supreme Court in a few more months.

ITU, blocked at every turn and almost certain to be defeated in court, probably is going to have to back down from its stand against the Taft-Hartley bill. Few Congressmen want to make the new law an issue. Nine out of ten legislators, as a matter of fact, say that it would amount to political suicide in their states or districts to actively fight against the bill.

Many Cost Increases

Woodruff Randolph, president of the ITU, has said that the union will use its "economic strength" to have its way, but the deflections here and there among hitherto loyal locals means that Mr. Randolph may find himself in trouble, come election-time in his union.

The Office of Domestic Commerce has reported here that newsprint likely will be in short supply all through 1948, maybe even longer, but that most other types of paper will be in full supply this year.

The ODC didn't say so, but higher prices also are going to be in order for most kinds of paper, including newsprint. Most publishers had on hand a thirty-day supply of newsprint at year's end, more than they had a year previously.

Whether or not paper prices will rise precipitately in the next few months depends more on Canadian sources than on any laws in Congress, or what is said or done in the United States. Odds favor increases by most mills in the coming months. Some increases, of course, already have been announced.

Paper and wage costs will represent the two biggest increases in the cost of doing business in a

printing shop in '48, but not the only increases, by any means. Utilities all over the place are going to be seeking price increases, due to higher operating costs. Fuel oil, gasoline, and heating and cooking gas are going up. Also railway express costs, and transportation costs generally. It's hard to find an oasis in the desert of price rises.

A new wage pattern—providing for increases of from 10 to 20 per cent, mostly the former—in the printing industry is anticipated when new contracts are signed around the nation.

The Government Printing Office, biggest plant in the nation, has given its 5,500 employes a 12¾ per cent increase, which means about \$10 a week more for employes in the graphic arts division. This was a compromise, the employes having asked for increases ranging from 15 to 42 per cent. Augustus E. Glegenack, Public Printer, succeeded, however, in getting the employes to take the smaller increase.

Many a small printer is feeling the loss of volume occasioned by the inability of the average man to buy the kind of printing—ranging from blotters to stationery to Christmas cards—he used to order.

A look at the statistics on living costs, released recently by the Bureau of Labor Statistics, shows why this average citizen is broke.

Average American family of four (mother, father, and two children) needs \$3,458 a year just to stay alive in Washington, D. C., at current price levels. In New York City, the same family needs \$3,347, while in Detroit, the family needs \$3,293. In Chicago, the family needs \$3,382, while in Los Angeles, the four-member family must have \$3,251 to keep body and soul together in a reasonable degree of comfort.

Priced out of Market

How many families are taking in that kind of money? The Federal Reserve Board's last survey showed that less than one-third of all our American families earn \$3,000 or more annually.

This means that every time some commodity needed for actual subsistence goes up in price, a whole raft of families are priced out of "want" or luxury markets. A survey by a national business magazine showed that one-third of all potential motor car purchasers had been priced out of the market in the past six months.

Neither economist nor crystal-gazer can tell you what's going to happen to the nation's economy

in '48. A man who makes specific predictions is like a fool who rushes in where angels fear to tread.

For a time after V-J Day, both conservative and New Deal economists predicted a break in prices, mostly on the basis on post-World War I experience. But by now they have figured that the factors are vastly different—and nobody will hazard a guess.

Cut in Taxes Certain

After World War I, the nation owed about \$26,000,000,000—that was the national debt. Now, the national debt is ten times that.

After World War I, private bankers lent several billion dollars to the nations overseas. Since the end of World War II, the Government itself has given away, or lent, more than \$20,000,000,000 to other nations—about ten times as much as was spent or lent by private individuals before.

After World War I, there were no contracts guaranteeing millions of laborers a certain share of the production pie. Today, virtually every laboring group has its pay down in black-and-white in a contract. Wages can't fall, at least for many months, maybe years.

Yet, as noted, millions of persons are being priced out of market after market. Where's all this to end?

The economic factors are no more puzzling than other less tangible factors. Installment buying is at an all-time high today. Consumers owe more than ever in our national history and are still borrowing. Yet we have just gone through the greatest spending spree in our history.

Just as much may depend on what the average man thinks as on the size of the national debt. A wave of rumors may frighten people either into buying frantically and pushing prices up further or hoarding dollars and bringing business to a virtual standstill. Anything can happen in an economy as tilting as the one we have today.

Yet, there are certain things you can count on in '48.

You can bet that the tax bill introduced by Representative Harold Knutson is really veto-proof. If it's vetoed, the bill will be passed. No appreciable number of Congressmen can vote against such a bill only a few months before national election. It provides for a 10 per cent cut (and up, for low-income groups) in personal income taxes.

You can be sure that Congress isn't going to pass much important legislation this year—other than a Republican version of the Marshall

plan. Otherwise, there is going to be a lot of talk—for the record—and politics all over the place.

You can be sure that most prices will be higher at the end of '48 than they were at the beginning.

One group in the nation—and a group printers can't afford to overlook—who are doing better than average in this prosperous plateau is made up of your country cousins, the farmers.

The farmers of the United States in 1947 made a net profit of \$18,000,000,000, about 20 per cent over that of the previous year, according to the Bureau of Agricultural Economics.

The farmers' gross income in 1947, including the home consumption of food and the rental value of dwellings, in addition to cash receipts, was estimated at \$34,000,000,000. That is not hay. Or it isn't cheap hay. Cash payments, including Government subsidies, actually put more than \$30,000,000,000 in cash in the pockets of the farmers, and fewer farmers than ever before.

It might be a good time to be thinking of milady's needs again—if she lives on a farm.

Miscellaneous

Notes to you: The Bureau of Internal Revenue is thinking of changing the definition of a "worker," or "employee," and bringing in additional groups under Social Security . . . The legislation to include millions of new persons under Social Security will be enacted in '49, but not this year . . . Senator Alexander Wiley wants to subsidize newspapers and magazines from America so that Europeans can read about us and become better people . . . Sounds good, but American movies haven't made us so many good friends abroad . . . The United States now has 39,000,000 families, which means there are 9,000,000 more household groups—and that much more demand for houses—than there was fifteen years ago . . . Foreigners now own more than \$26,000,000,000 worth of assets in the United States . . . On the other hand, Americans would own approximately \$17,000,000,000 worth of assets abroad, if they were permitted to trade them, sell them, or bring home the profits, but they aren't in most instances . . . The stock market is only factor in our economy that hasn't gone up in a ratio comparable to the increase of values and prices generally . . . Potential investors say, publicly or privately, that's because they aren't too sure about future profits, if any.



SOME Franklin Firsts

Franklin discovered that lightning is electricity.

Invented the lightning rod.

Invented the Franklin stove—the first successful wood-burning stove in the country.

Helped to establish the first insurance company in America.

In Philadelphia, organized the first street cleaning, the first fire company, the first library, the first hospital.

Invented a copying press.

Invented bifocal spectacles.

Invented the harmonica.

Originator of the modern science of air-conditioning.

First to discover the Gulf Stream is higher than surrounding water and first to have this Stream charted.

First to demonstrate that oil on water will still waves.

Father of U. S. Weather Bureau.

He established the first circulating library.

Founded the University of Pennsylvania—which was the first non-sectarian university.

Originated the elective system of college credits.

First to prescribe athletics as an adjunct of college education.

Started the first thrift campaign.

First to propose daylight saving.

Organized the postal system and was the first Postmaster General.

First to attempt to illustrate the news in American newspapers—the first to publish questions and answers.

—from one of a series of blotters honoring Benjamin Franklin, designed, set, and printed by students of the Timken Vocational High School, of Canton, Ohio.

KEMART

Highlite White

New process uses fluorescent surfaces with ultra-violet light to produce halftone negatives with full tonal range

● AMONG THE NEW applications of science to photoengraving is a recently announced process which, it is claimed, produces halftone negatives with a full tonal range from total white to solid black, making possible a truer rendition of all the tones of the original copy.

Called the Kemart Process, it is based upon the use of fluorescent drawing surfaces and purple (ultra-violet) light to permit two separate exposures—one for highlighting and tone control, the other for halftone rendition—on the same negative.

Automatic drop-out highlights and combination line and halftone negatives can easily be made by the process, but the inventors claim that Kemart's chief contribution to photoengraving is its ability to greatly extend the range of gradation of halftones. J. S. Mertle, an authority on photomechanics, confirms the correctness of this claim.

Two Exposures Made

The tonal scale of the conventional halftone, the inventors point out, can range only from light gray to dark gray. These two opposing shades of gray must always be its extreme limit of contrast, because the dot structure is everywhere present, graying pure whites and diluting pure blacks. Because the lightest gray must be used to represent white, and the darkest gray to approximate black, intermediate tones are compressed or telescoped. They are pushed down from the top and up from the bottom by pseudo-whites and pseudo-blacks, these occupying positions well into the gray parts of the scale.

A Kemart halftone, on the other hand, reproduces whites as whites and blacks as blacks, wholly free of dots at both extremes of the scale. The range available to the halftone grays is thus extended—they are given more "breathing space." The lightest true gray occupies its rightful place in the scale of the repro-

duction because that place is not already occupied by a false tone attempting to simulate the pure white of the copy. Likewise, the darkest gray, just off the black, is reproduced in its true shade and differentiated from solid black.

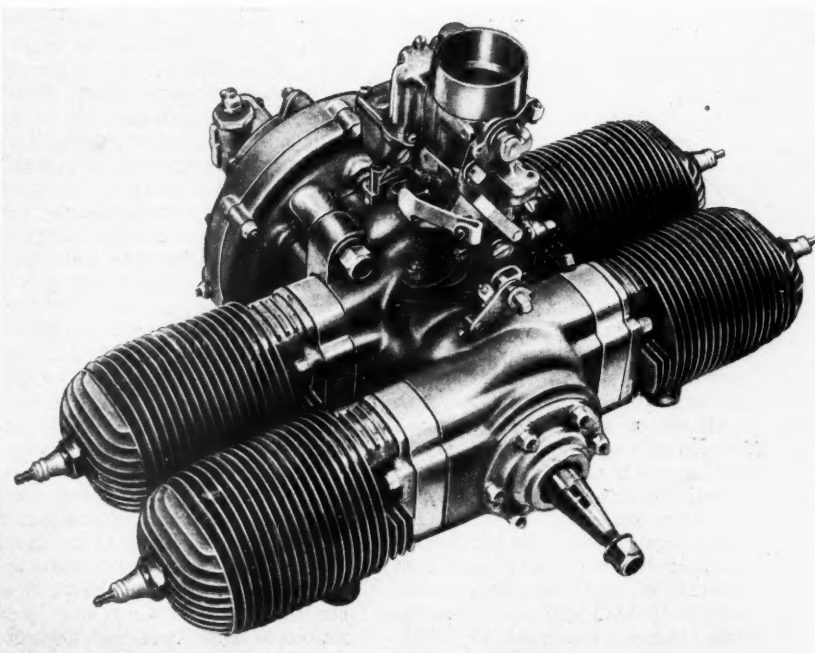
All non-image (highlight) areas of Kemart copy consist of fluorescent surfaces which glow under purple light. The negative receives two exposures in the engraver's camera. First an exposure is made without the halftone screen and with the purple light from Kemart camera lamps until all the glowing (fluorescing) areas are exposed to total

serted, arc lamps turned on, and a normal halftone exposure made.

Early experiments with the process were confined to producing halftones with no dot formation in the white areas of the copy. The ability also to get solid black at the other end of the scale was a later discovery. As the inventors explain it, they noticed that the purple light exposure seemed to overcome the inertia of the photographic film or plate, with the result that sharp and opaque shadow dots were obtained with reduced "flash" exposure. Exposing the negative for the drop-out made it possible to carry out the normal camera exposures. No longer was it necessary to sacrifice accurate reproduction of mid-tones to render the light tones light enough.

Use Special Materials

When the Kemart exposure was made first, they were able to get, during the normal halftone exposure, a very satisfactory dot in the screen areas with a flash of fifteen to twenty seconds. By reducing or eliminating flash, they were able to obtain solid blacks wherever they appeared in the copy.



Conventional square finish halftone. Note the dot formation in highlight, shadow, and middletones

density on the negative. During this time, the film remains unexposed to the gray and black areas of the copy. When the Kemart exposure is completed, the purple lamps are turned off, the halftone screen in-

Both photographs and drawings may be reproduced by the Kemart process, but they must be prepared on or with special materials. Drawings which have large white areas are made on paper or illustration

boards which are impregnated with fluorescent compounds. All parts not covered by the drawing will be highlighted on the negative when the copy is given an exposure under purple light.

Ordinary Drawing Implements

The drawing itself, if a black and white, is made with a wash black especially compounded to cover and to chemically neutralize the light-activating surface of the drawing paper or board. It is thinned with a special "neutralizer," not with water. The neutralizer is used wherever the artist desires to retain a gray value in the photoengraving. When used as the faintest gray wash the eye can detect, it gives a dot value similar to that given by white paper in ordinary halftones.

Pencil and crayon sketches, as well as the wash drawings, may be automatically highlighted by Kemart process. Any ordinary drawing pencil, grease pencil, or crayon may be used on the fluorescent paper or board, the important consideration being the degree to which the pencil or crayon covers the board and thus screens off the fluorescence. Kemart highlight white is

out with an opaque white fluorescent pigment. The opaque white can also be used for outlining the photographs.

The drawing papers, illustration boards, and other special artists' materials are stocked by dealers in cities where the Kemart process is used. To facilitate inspection by the artist during the progress of his work, a special artist's lamp is supplied which emits the same rays as the purple camera lamp which is used by the engraver.

To those who have followed developments in the photoengraving field, the application of the fluorescent principle to highlighting and combination platemaking is not new. It is the basis of the Fluorographic process, which was introduced shortly before the war and is now used in a number of engraving plants. In the Fluorographic process, only the image or



Combination highlight halftone made with Kemart Process. No Velox print nor hand opaquing on halftone negative was needed. Line portion of the halftone was made by rough masking during exposure

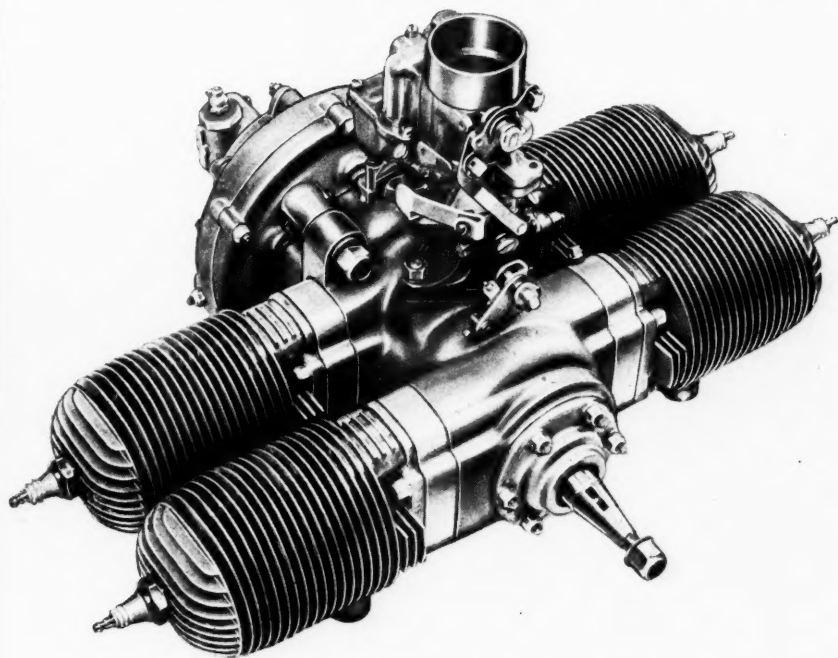
as well as drawings and give faithful reproduction of all tone values.

The Kemart Process is a development engineered by Burt L. Berry and his associate, Lyle P. Youngdahl, both of San Francisco. It has stemmed from their work with luminescent materials in the production of pictures and art work which "glowed in the dark." They were pioneers in this field, as well as in the application of the fluorescent principle to photographic reproduction.

The first experimental Kemart halftone negative was made about twelve years ago in a San Francisco engraving plant. The process was almost ready for commercial introduction when World War II intervened and fluorescent materials were unavailable. For two years development was limited to laboratory research and perfection of apparatus, and it was not until March of last year that the Kemart Corporation was organized to manufacture and license the process.

Extension of Tonal Range

Among those who gave early encouragement and advice to the inventors was J. S. Mertle, well-known photomechanical authority who was recently appointed technical director of Kemart. It was Mr. Mertle who first appreciated the importance of the ability of the process to extend the tonal range of the halftone negative from pure white to solid black and improve the mid-tones. Before that, they thought of it as a highlighting process.



Kemart halftone of same subject as that shown on facing page, distinguished by brilliance and greater tonal range. Note the pure white and solid black areas, entirely free of dot formation

used for corrections, or to cut in for full highlighted effects over darker areas. Airbrush work may also be done on the special paper.

Photographs are highlighted by retouching the areas to be dropped

tone areas of the copy are fluorescent; in the Kemart process, only the non-image areas are fluorescent. Kemart has an advantage over other highlighting processes in that it can be used on photographic copy

Use of the process is being expanded into the field of color printing, for production of "fake" color plates from monochromatic copy. By means of either a masking or a blueprinting technique, highlighted halftone negatives for the color plates are made from a Kemart original, each plate bearing a dot formation only in the colors it is to represent—free from the degraded highlights and hues caused by the presence of other colors.

The process is also being used for the production of flat color effects



Pencil, crayon, and grease pencil drawings on Kemart drawing paper can be reproduced in halftone to look like the original. Areas between strokes are clean and white; stroke edges and tones retained. Reproduction is 110 screen

(tints) from wash drawing or photographs, or combinations thereof. In Chicago it is being applied experimentally to regular color separation, concerning which more detailed announcements will be made in the near future.

LIFE is divided into three terms—that which was, which is, and which will be. Learn from the past to profit by the present and from the present to live better for the future.—*Warp & Woof*

When Soapmakers Helped Printers in Madagascar • By ARTHUR WARREN

DECEMBER 4, 1827, was a great day in the story of Madagascar. The first sheet had come from the printing press of the British missionaries in Antanarivo, the capital city in the mountains.

What a story that little group could have told as they gathered round that old-fashioned wooden press! Their work had begun there only eight years before when King Radama had welcomed David Jones, the ardent young missionary from Wales, to teach his people.

This dauntless young Welshman had been bereft of his wife, his baby, and his companions, by the dread Malagasy fever. But he had grappled with the language and established a school for the children of Madagascar. With the king's help he had evolved a simple alphabet containing only twenty-one letters.

From that success, the next step was to write out lessons for his pupils. But making copies with pen and ink was painfully slow, and so the missionary society in England had sent out Charlie Hovenden, the printer, whom they had previously employed in Russia.

Setting Up the Press

With the printer had come this wooden printing press. It was of the old screw type, reminding one of the days of Caxton. Also came the necessary type and other printing materials. All had been transported across most difficult mountainous country from the sailing ship.

But the dread fever laid hold on poor Charlie Hovenden and laid him in his grave within a few days after his arrival. He had not even time to unpack.

David Jones, as leader of the party, sent to England at once, urging that another printer should be obtained without delay. But sailing ships to the island of Madagascar were slow and infrequent, and Hovenden's death was no inducement for printers to leave their own land to face a similar prospect. So after waiting nearly a year David Jones and his helpers determined to open the cases and try to set the press up themselves. It was a puzzling task, but at last the press stood before them, ready for work.

What a generous supply of ink they put on those ink balls! Then—so the ancient chronicle states—"they brought down the screw with force."

The quality and speed improved; then came a steady flow of printed pieces from that little Malagasy press. ABC sheets, spelling primers, catechisms, and gospels came forth. The energizing force of the printing press was let loose over the land.

Printing was not the only trade the missionaries introduced into Madagascar. A crowd of pupils came to George Click's forge and learned to shape and weld the glowing iron. Others learned the art of tanning and making leather goods. Thomas Rowlands taught weaving and spinning. Workshops were set up, and

hundreds of Malagasies learned useful trades. It seemed as though a new era of enlightenment and freedom was dawning for that island in the Indian Ocean.

But then the friendly King Radama died, and his throne was taken by the superstitious, cruel Queen Ranavalona. She coveted the arts and the crafts of the British missionaries, but hated the thought that her senseless idols were being displaced by this new religion.

Before long she demonstrated her feelings. Down came her royal messenger to the white men with her command: "The



The Queen's Palace, Antanarivo, Madagascar (Illustration courtesy Newtonian Illustrated Press)

Queen wishes the white men to leave the country—unless they can teach her people to make something of special value, like soap from native materials."

"Leave the country!" That would be a disaster! The missionaries were stunned. "We have so much to do yet. We must have time to finish translating and printing the Bible. And that will take years."

"But soap! How do they make soap?"

Soap for a Queen

The carpenter-builder of the party, Cameron, took up the challenge. He knew that soap was made in some way from fat and soda or potash. For a week he and his friends experimented with suet and fat and the ashes of various plants and trees. And when the royal messenger came again for their answer, David Jones handed him two small bars of soap with a message for the queen.

"Your majesty," said this spearman, "This is soap made by the missionaries wholly from the products of Madagascar. I am to tell you that they are prepared to teach your subjects to make soap."

The astonished queen examined the two tablets. It was soap—really good soap. She was highly pleased to think that it was her cleverness which had brought forth this. And she gave Cameron contracts for soap which would need a factory and give work for many years.

The Month's News

Section devoted to timely items concerning men and events associated with printing. Copy must reach editor by twentieth of month preceding date of issue

WILLIAM W. LOOMIS

William W. Loomis, a former president of the National Editorial Association, and active in other newspaper and printer groups, died of a heart attack on a suburban train in Chicago, December 8, while enroute to his home in LaGrange, Illinois.

Mr. Loomis was born in Clermont, Iowa, September 16, 1876; received a B.S. degree from the State University of Iowa in 1899, and started his editorial career in Iowa City in 1898. He served on various newspaper staffs until 1905, at which time he became connected with the *LaGrange Citizen*. He became the president of the Citizen Publishing Company and published four suburban newspapers near Chicago. He had been active in trade association work, and served in various capacities over a period of years in the National Editorial Association, the Illinois Editorial Association, and the Cook County Suburban Publishers Association.

ANNOUNCE NEW SALES POLICY

Vandercook and Sons, Incorporated, Chicago, has arranged with American Type Founders Sales Corporation, Elizabeth, New Jersey, that sales of eight of Vandercook's hand proof presses shall be handled exclusively by ATF within the United States. E. O. Vandercook, president of the Vandercook concern, in making the announcement said that the eight presses range from the smallest machine made by his company to a full page proof press for newspapers.

Mr. Vandercook said that the remaining thirteen letterpress proof presses manufactured by the company and also the Hacker gauges, and a new block leveler soon to be announced, will be sold exclusively by the sales force of Vandercook and Sons in the United States. The new line of Vandercook offset proof presses, the first of which is now in production, will also be handled exclusively by the Vandercook sales staff, whose offices are in Chicago, New York City, and Los Angeles. Displays of proof presses will soon be shown in the twenty-two ATF branch sales offices.

REQUEST PREVAILING WAGES

Members of the New York State Allied Printing Trades Council want the state to pay the prevailing wage rate in the area for state printing contracts, according to John E. McGarry, secretary-treasurer of the council. A bill to amend the present printing law to in-

clude this provision was discussed at a recent meeting of the council's executive committee in Albany.

NAME HAFNER PRESIDENT

Charles C. Haffner, Jr., has been elected president of the R. R. Donnelley & Sons Company, Chicago, succeeding Mr. H. P. Zimmerman, who after forty-six years of service will retire, retaining his position on the board of directors and as the chairman of the executive committee. Attorney John H. Doesburg, who has served as assistant secretary, has been named secretary. Announcement of changes was made by Thomas E. Donnelley, chairman of the board.



CHARLES C. HAFNER, JR.

Mr. Haffner has been treasurer of the firm since 1934, and prior to that time was engaged in the banking business, having been executive vice-president of the City National Bank and Trust Company. He was a major general in World War II in command of the 103rd Division which he organized, trained, and led into battle, this division having been the first to enter Germany. He is now commanding general of troops of the Illinois National Guard, and is also the commanding officer of the 33rd Division. During the past several years he has had charge of the building operations of the Donnelley organization whose expansion plan, including installation of new equipment, exceeds \$8,000,000.

SEES PHOTO-COMPOSING GAIN

Commenting upon the production of Chicago newspapers through the help of photoengravers during the strike of the Chicago typographical union, the *Photo-Engravers Bulletin* in its December issue said the following:

"If the union had an idea that the withdrawal of its members would stop the publication of newspapers, they know by now that they were mistaken. All of the Chicago newspaper publishers are sending out their regular editions, and doing this by the use of Varitype machines and photoengravings. . . . The photoengraving process and photoengravers in this instance represent the rescue squad.

"The printers have started something in this instance that may give them cause for reflection for some time to come. . . . It is safe to say that a goodly portion of present-day typesetting by hand and machine will be superseded by photo-composing methods. The transition will not be sudden nor is it in immediate prospect, because the change in typesetting will involve changes in other mechanical equipment connected with printing. The change is coming, however, and to what extent is anybody's guess.

"One thing is certain. The action of the International Typographical Union is going to do more to hasten the development and introduction of phototypesetting than anything the employers could have done to limit the progress of the union."

WILL TRAIN LINO OPERATORS

A seventeen-week course of study and practice in linotype operation has been announced by the University of Iowa with the purpose of relieving the shortage of linotype operators in the state. Thus far fifteen students have enrolled for the course which will begin in February and run forty hours a week. In determining priority of students, it was decided that applicants who are veterans of the recent war and sponsored by Iowa publishers would be accepted first. Vacancies in the future, if not filled by the sponsored students, will be filled in the order of application by the university authorities in charge of the newspaper production laboratory.

Equipment in the laboratory consists of three line-casting machines, and all other equipment usually owned by a country weekly newspaper publisher, including a platen and cylinder press.

In addition to the machine typesetting study and practice, a course of production covering principal operations in a weekly newspaper plant will be conducted. It will be under the supervision of William J. Morrison, formerly director of linotype instruction at the University of Missouri, and formerly sales manager of the University of Nebraska Press. Previous to his teaching experience he was for ten years connected with daily and weekly newspapers.

Support is being given to the new course in linotype training by the Iowa Press Association and the Iowa Daily Press Association.

DIRECT MAIL SHOWS INCREASE

Expenditures for direct advertising are expected to reach a total of \$750,000 in 1948, according to the Direct Mail Advertising Association, which bases its estimate on a survey conducted among users of printed promotion. Types of direct advertising which will go to make up the total include direct mail, dealer helps, house magazines, catalogs, product literature, and various kinds of promotional literature.

Charles B. Konselman, president of the DMAA, said that 70.8 per cent of the firms reporting in the survey will increase their budget for direct advertising; 27.8 per cent will spend about the same amount as in 1947; and 1.7 per cent plan a reduction.

The association, which has a membership of 1500 firms, has established a new national advisory board which will act to promote greater and more effective use of direct advertising.

WILLIAM B. LAWRENCE

William B. Lawrence, associated for twenty-five years with Louis Flader in management of the American Photo-Engravers Association in his capacity as certified public accountant and statistician, died at his residence in Lombard, Illinois, on December 20.

Mr. Lawrence was born in Covington, Kentucky, May 21, 1882, and was educated in that city. He became interested in cost accounting in the graphic arts in 1919 in connection with the United Typothetae of America when Joseph Borden was general secretary. In 1922, he became associated with the American Photo-Engravers Association and established the statistical and accounting system employed by photoengravers in determining costs of their products. He wrote many articles on the subject as applied to the graphic arts and was the author of a book on the subject of accounting. He was professor of accounting in the college of commerce of DePaul University, Chicago, and he frequently lectured to business groups.

CARL BECK SUCCEEDS UNCLE

Carl A. Beck has been named president and the general manager of the Charles Beck Machine Corporation, of Philadelphia, manufacturer of automatic roll sheet cutting machines. He succeeds his uncle, the late Charles J. Beck, who died November 1.

MOST PAPER SUPPLIES EXPECTED TO REACH BALANCE IN SUPPLY AND DEMAND THIS SPRING

● PAPER for printing should be much less difficult to secure in 1948 than it has been for several years. Most grades of paper, with the exception of newsprint, will reach a balance in supply and demand in the early part of 1948, according to the Department of Commerce. Dr. Louis T. Stevenson, statistician for the American Paper and Pulp Association, says that "so far as the consumption of paper is concerned, not later than the first quarter of 1948 the consuming industries will have rebuilt their inventories to their prewar level in a great many lines."

In its estimate the Department of Commerce has allowed for some expansion of demand in 1948, but believes that this will be more than offset by the new production capacity.

The extent of this new production capacity is considerable, a survey made by the American Paper and Pulp Association reveals. New paper machines installed in 1946 and 1947, plus those to be put into operation in 1948, will have added 3,258,860 tons to capacity by the end of 1948, for a potential total output of 23,540,910 tons a year. Total production in the year just closed was approximately 21,000,000 tons.

Fifty-three papermaking machines have been or will have been installed since 1945; six in 1946, twenty-four in 1947, and twenty-three new ones scheduled for 1948. In distribution of this new capacity over the three-year period, tissue paper comprises the largest number

of installations, with a total of twenty-four. Book paper comes second with nine. Of the rest, five are for fine paper, six for kraft, seven for sulphite wrapping, one for groundwood, and one for newsprint.

The nine new machines devoted to book paper production will boost total annual capacity in this grade to 2,417,730 tons by the end of the year. This compares with production of 1,918,655 tons in 1946, and is 46 per cent more than the 1,655,423 tons of book paper made in 1940. Fine paper capacity at the end of 1948 will be 1,291,520 tons, compared to manufacture of 1,143,257 tons in 1946 and 735,753 tons in 1940.

Capacity for pulpmaking will also have been expanded some 2,000,000 tons by the end of 1948, when total capacity will reach 14,000,000 tons, or enough pulp to manufacture 22,000,000 tons of paper and paperboard.

Full utilization of this expanded pulp and paper production capacity will depend, of course, upon the pulp supply. Domestic production of wood pulp in 1947 exceeded any previous record, and imports came to the highest previous total if not higher, but even so this record supply of pulp will not be sufficient to satisfy demand, according to a statement made by Fred G. Stevenot, who is president of the Puget Sound Pulp and Timber Company.

"Pulp is being consumed as fast as it becomes available, leaving the inventory shelves almost bare," said Mr. Stevenot. "Inadequacy is most pronounced in the supply of market pulp as distinguished from pulp converted into paper and paper products by self-contained mills." (Market pulp represents only 20 per cent of the total amount of pulp consumed in the United States, but it is a very important item in the manufacture of book paper and its scarcity has contributed materially to the shortage of printing grades of paper.)

The Department of Commerce said that "supplies of wood pulp and paper in the United States in 1947, while much improved over 1946, are inadequate to meet all consumption requirements."

The American Paper and Pulp Association, on the other hand, said in December that pulp supplies have been easing, that supplies of wood in most sections of the country were adequate to meet the heavy demand of mills, and that inventories of pulp at mills and on docks or in transit at the end of November totaled 766,000 tons, the highest in some years.

Imports of pulp for the first eleven months of 1947 were 2,116,988 tons, an increase of nearly 500,000 tons above the similar eleven months of the previous year. Canada continued to maintain her strong position as the leading supplier of wood pulp for the United States, with imports totaling 1,374,000 tons for the January-November period. Domestic production of pulp for the first nine

ANSWERS It's a Quiz

Here are the answers to the quiz on page 54. How well did you remember the information which you have read from time to time in previous issues of this magazine or have seen elsewhere?

1. Venetian, Nicholas Jenson; Modern, Giambattista Bodoni; Oldstyle, William Caslon; and Transitional, John Baskerville.
2. c or Kluge.
3. c or china; said to have been made by Pi Shêng in China during the years 1041 to 1049.
4. a, b and c—all three.
5. c or 1876.
6. About .002-inch.
7. Gravure, 1879; letterpress, 1450; lithography, 1796; and colotype, 1870.
8. a or 0.000035 to 0.000062-inch, so thin that films of 200 plates make the thickness of one tissue!

By R. Randolph Karch

months of 1947 was approximately 8,875,000 tons, compared with 7,803,000 tons for the same period in 1946.

Orders received by paper mills in November were 7.5 per cent below production, with backlog of orders decreased 6.5 per cent and stocks on hand at the mills increased 5 per cent.

If paper consumption in 1948 remains as high as in 1947, or goes higher, spe-

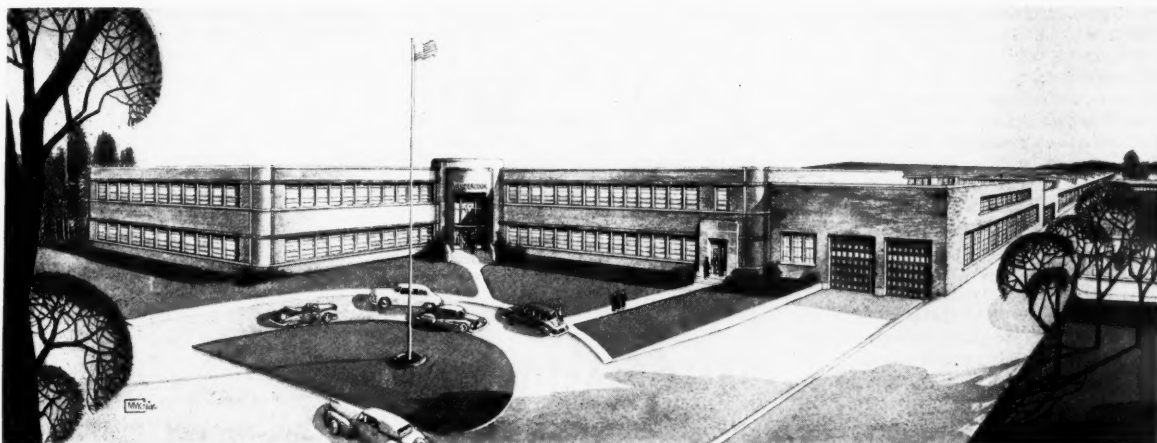
NEW BUILDING FOR VANDERCOOK

An investment of \$2,000,000 will be represented in the new plant of Vandercook and Sons, Incorporated, to be located in Lincolnwood, close to Chicago. Announcement of the plans have been made by E. O. Vandercook, president of the company.

The building to be erected will be one and two stories high, of brick and

eral offices, the engineering department, tool room, and the cafeteria.

At present the Vandercook company is operating manufacturing departments in its main plant and also at a nearby branch plant in Chicago. Not only does it produce letterpress proof presses for printers, photoengravers, and others in the industry, but plans are now being made to design and manufacture offset



Architect's drawing of new plant and laboratory of Vandercook and Sons Company, to be erected this spring at Lincolnwood, Illinois, near Chicago

cial efforts will probably have to be made to increase pulp production and imports even beyond the record 1947 levels. If 1948 consumption of paper drops below the 1947 figure of 21,000,000 tons, pulp supply will be much less of a problem.

The contract price of newsprint was raised \$6 a ton the first of the year by two Canadian producers, Abitibi and International. Others are expected to follow suit. This brings the price to \$96 a ton, basis New York, or \$92 in Canada, which is exactly double the prewar price.

Progress is being made toward development of a newsprint industry in the United States. Leading manufacturers of heavy industrial equipment expect a long-term boom in sales of paper mill equipment to new mills in the South, as a result of new developments in converting southern pine into pulp and improved processes for making newsprint. One of these manufacturers, Allis-Chalmers of Milwaukee, has opened a whole new department for paper mill machinery manufacturing and expects southern states to furnish its largest market.

Through advances in chemical processes, a whiter sheet with greater tensile strength can now be made from slash pine than was heretofore possible. Factors which will enable new mills to produce newsprint economically and profitably from southern pine include: ability to expand income by growing pulping pine trees in fifteen-year cycles for permanent market demand, because of the more favorable climate in southern states; increased efficiency due to installation of latest type of mill equipment which operates at lower cost than obsolete mills elsewhere; and possible income from new chemical by-products.

steel construction, and contain 118,000 square feet of floor space. In the factory, traveling cranes will cover the entire assembly area of 80 by 400 feet. One of the principal features of the new plant will be the printing equipment laboratory which will be devoted to the development of time- and labor-saving Vandercook pre-press equipment. Letterpress and offset printing presses of various makes will be installed in this laboratory to test the methods to be developed for reducing makeready time.

Plans call for air conditioning the printing equipment laboratory, the gen-

eral offices, the engineering department, tool room, and the cafeteria.

At present the Vandercook company is operating manufacturing departments in its main plant and also at a nearby branch plant in Chicago. Not only does it produce letterpress proof presses for printers, photoengravers, and others in the industry, but plans are now being made to design and manufacture offset

In his announcement, Mr. Vandercook said that their business involves more than the manufacture of proof presses. "Being the largest manufacturer in our field, we feel obligated to assume the responsibility for research, designing, and engineering of such pre-press equipment as will be of most benefit to the graphic arts industry," said Mr. Vandercook.

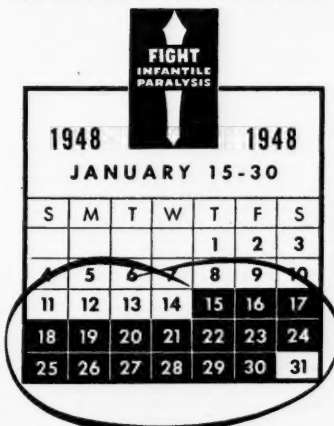
OFFERS SUMMER COURSE

Summer courses of study and practice will be resumed by the printing department of Carnegie Institute of Technology, at Pittsburgh, beginning July 6 and continuing through August 14. Both beginners and those who are experienced in the industry will be enrolled for the courses which will probably include typography, machine composition, plant management, layout and design, estimating, cost finding, press work, and photo-lithography. Registration dates are set for July 2 and 3.

SEEK MARINE RECRUITS

The United States Marine Corps is actively engaged in seeking recruits for its reserve corps. They will spend fifteen days annually in one of its summer encampments besides participating weekly in organized activity and instruction periods as members of the "Citizens Marine Corps." Marine units are maintained in eighty-two major cities. Information may be obtained from Division of Reserve, Headquarters Marine Corps, Washington 25, D. C.

Join the MARCH OF DIMES



THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

DEVELOP SHIPPING ROUTINE

New methods of shipping large newspaper press units have been devised by the Goss Printing Press Company, Chicago, which reduce the time required for erection in the plants of publishers. Following testing of the assembled press at the factory, each unit and folder is detached intact, then mounted on heavy skids, and placed on a flat car or gondola where they are anchored to the car floor. Plate and impression cylinders are shipped separately in specially constructed boxes to prevent damage during shipment.

In case inadequate facilities exist within a publisher's plant to handle a complete unit assembly, the press units are designed so that they may be dismantled for shipment with many of the gears, brackets, and other parts mounted on the frames. Other parts are designed as "sub-assemblies" so that only partial dis-assembly is required when shipping.

ISSUES ROLLER CATALOG

Ideal Roller and Manufacturing Company has issued a loose-leaf catalog of its products and services, containing sixteen sheets printed on one side. E. B. Davis, vice-president of the company, said that the plans call for additional sheets which will be sent to customers from time to time. The book was designed with the idea of placing before buyers and users of printing and lithographic rollers facts about the various kinds of rollers—their materials, advantages, and limitations.

PUBLISHES BOOKLET

Controlled humidification is described and illustrated in a 12-page booklet issued by the Armstrong Machine Works, Three Rivers, Michigan. In addition to pictures showing installations, the booklet contains tabular matter referring to desirable temperatures and humidities of various industries.

RULE AGAINST CITY TAX

New York printers have been relieved of the necessity of passing on to customers outside the city proper, the sales tax which has been an adverse factor in out-of-town competition. A change in the ruling concerning the application of the tax has been made by the Bureau of Excise Taxes of the City of New York in response to arguments presented by the New York Employing Printers Association that the tax was working against the printing industry in the city.

ELECT OFFICERS

Charles H. Jensen was elected president of the Graphic Arts Industry, Incorporated, Minneapolis, at its annual meeting recently. Vice-presidents were elected as follows: Felton Colwell, Randolph E. Haugan, William J. Hickey, Frank P. Leslie, and H. F. Shedd. Leighton R. Johnson was elected treasurer, and S. Walter Sears, assistant treasurer. Paul J. Ocken is employed as vice-president and general manager, and Grace H. Downing is executive secretary.

J. T. BACKUS

J. T. Backus, for twenty years connected with the Champion Paper and Fibre Company, Hamilton, Ohio, died on December 5 after a short illness. During the war he served on the paper division of the War Production Board in Washington, D. C.

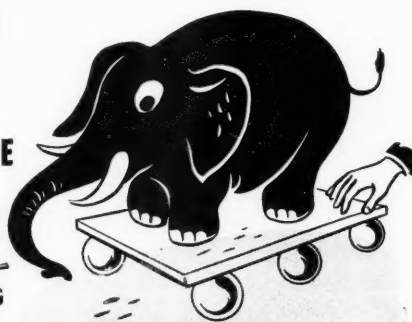
ISSUES CHEMICAL CATALOG

Litho Chemical and Supply Company, New York City, has issued a catalog in two colors, containing information concerning the company's deep-etch and albumin plate chemicals, besides chemicals used in other departments of the graphic arts. One section which is included concerns the making of lithographic plates.

SWEDEN MAKES ATF PRESS

Production in Sweden has been started of the Chief offset press manufactured by the AB Printing Equipment, Stockholm, by arrangement with the American Type Founders Sales Corporation whose agents in Sweden and elsewhere on the continent of Europe will handle sales. Louis E. Pleninger, vice-president in charge of export sales of the ATF Sales Corporation, announced that the Swedish Chief has been slightly modified in construction to enable it to handle sizes of paper used in Europe. He said that while products of American Type Founders are handled in sixty-five countries, this is the first time that any of its presses has been manufactured abroad.

YOU CAN'T OVERLOAD the *Glider's* BALL BEARING TABLE



HAMMOND *Glider* TRIMOSAW MODEL G-4

Whether sawing a full page type-high cast or a single slug, the "feel" of the Glider's ball bearing table is practically the same.

Further, this construction provides maximum precision as there is no side-play whatever. The Glider's table is like a regular ball bearing raceway, the only difference being that the ways are in a straight line.

NEW! STRIP MATERIAL CABINET



MODEL
NO. 24

Put a Strip Material Cabinet by your Hammond Trimosaw. This will mean less steps and thus save time and money.

We'll be glad to send promptly bulletin and price.

Hammond
Machinery Builders
INC.
1616 DOUGLAS AVE. • KALAMAZOO 54, MICH.

ANNOUNCE DISCOUNT PLAN

J. W. Butler Paper Company, Chicago, has put into effect a plan of continuing discounts on a 2 per cent basis, provided buyers will make three payments a month instead of one. In the event that buyers wish to continue the one payment a month plan the one per cent discount method will be effective. The 2 per cent plan as stated by the company follows:

"Invoices dated first to tenth inclusive of any month to be paid on fifteenth of that month. Invoices dated eleventh to twentieth inclusive of any month to be paid on the twenty-fifth of that month. Invoices dated the twenty-first to thirtieth or thirty-first of any month to be paid on fifth of the month following."

Gregg Frelinger, vice-president and general manager of the paper house, said that printers have expressed approval of the plan and that the management had conferred with S. F. Beatty, secretary and general manager of the Graphic Arts Association of Illinois, before the plan was announced. Mr. Beatty conveyed information of the plan to the headquarters of the Printing Industry of America, with the suggestion that it might be the solution to the problem of discounts to be allowed buyers of paper in view of the PIA campaign against reducing the discount rate from 2 to 1 per cent.

CLARENCE A. MERRILL

Lost to the industry in November was a man who pioneered in simplicity of typographic design early in this century, at a time when ornateness was the rule of the day. He was Clarence A. Merrill, for nearly thirty years superintendent of the printing plant of the United Rexall Drug Company, Boston.

Mr. Merrill learned his trade in country shops in Maine, and supplemented his shop experience with correspondence courses in typesetting and design. His favorite type face was Caslon, and he was most versatile in utilizing it for simple and dignified pieces of printing, many of which won prizes in typographic contests. A story about Mr. Merrill in the October, 1946, issue of *THE INLAND PRINTER* reproduced some of his work which originally appeared in this magazine in 1912.

Teaching young men to be good printers was a hobby with Mr. Merrill. More than half of the men in the United-Rexall plant, including foremen, learned the trade under his tutelage.

CHARLES H. KRONENBERGER

Charles H. Kronenberger, more than sixty years a printer operating his own shop until his retirement in 1939, died December 10, in Milwaukee. He was eighty-three years old.

SYNTRON ISSUES CATALOG

Syntron Company, Homer City, Pennsylvania, has issued a new 92-page catalog in which is listed all of its products, a copy of which may be obtained by anyone requesting it.

STANDARDIZATION OF TYPE SPECIMENS PLAN SUBMITTED FOR APPROVAL BY TYPOGRAPHERS

● PLANS to standardize showings of type faces and sizes available may cost as much as \$100,000 and take as long as five years to work out. Frank M. Sherman, secretary and executive director, said that the plans have been submitted to all members of the International Typographic Composition Association, with a contract blank enclosed upon which each member can indicate to what extent he will support the plan.

It is proposed that each size of every face of type be listed and visualized on a card 8 by 5 inches in size, and it has been estimated that from 3,000 to 4,000 cards will be required for the complete listing. On each card will be shown the name of the type face and its size; the originator of the face; the complete showing of alphabet in caps and lower case; specimens of set-up type, solid and spaced; alphabet length in points; characters per pica, and the characters per inch.

The committee, of which Sol Cantor of New York is chairman, proposes that the card filing system take the place of the traditional specimen book. The cards will be separated by tabs into type families arranged in alphabetical order, and placed in a box having a hinged cover similar to the regular card index file. The cards will thus make up the ITCA Type Specimen Library. Association members will order cards covering the faces and sizes they have in their plant in whatever quantity desired with the series name tabs and the filing boxes needed.

If members support the plan, the faces now in general use will be the first for which cards will be produced.

Later, as new faces come out, a showing of all sizes will be made available immediately for the ITCA Library.

In addition to the probable \$100,000 required to finance the project, it will cost a minimum of \$10,000 a year to supervise the work, said Mr. Sherman in his communication to members. Continuing, he said:

"However, against these figures must be offset an estimated \$200,000 a year, perhaps more, now being spent by the ITCA members alone in setting and printing individual specimen books and showings of type faces—in most cases not achieving a result as good as the showings proposed by the committee.

"The members do a total volume of business in excess of \$40,000,000 a year. Can such an industry stand an investment for five years of less than 1/20 of 1 per cent of its sales to do a job which will save many times that much each year once it has been completed?"

Members who agree to do some of the typesetting of the cards and making of the electrotypes will be allowed credits of \$15.00 a page against the purchase of specimen cards when they shall be available. It is suggested that after the plan is made operative, the library will be "an invaluable source of specimen showings of types used in the trade," and unquestionably the library would develop a profitable market for the specimen cards outside the trade composition industry.

Mr. Sherman made these further comments: "We are endeavoring to find out what support ITCA members are willing to give to the proposal of the committee. If enough of them are in favor of it and are willing to pledge themselves to produce specimen pages and furnish electrotype plates of the standards which will be specified, we will go ahead with the idea. On the other hand, if we fail to receive evidence of sufficient support to justify going ahead with the work, we will drop the idea.

"In the many years of my connection with the commercial composition industry I have been impressed with the need of a standardized showing of the typographic resources of the trade, and the work I have done and the work of the committee has been primarily for the purpose of determining, once and for all, whether or not the trade is willing to support a proposal which we consider to be the only practical solution of the problems involved."

Pledges of members to set specimen pages and furnish electros in compliance with the requests of the ITCA will be reviewed by the ITCA executive committee at its mid-year meeting to be held in New York City early in April, and it will then be determined if a sufficient number of pledges have been received to justify going ahead with the plans that have been made.

Current News and The Bible

BY DEACON
CLEARLIGHT

What is to be done about the alarming increase of juvenile delinquency is a question the public is concerned about. The Bible has a lot to say about prevention. Here are quotations from Protestant, Jewish, and Catholic versions:

"Train up a child in the way he should go: and when he is old, he will not depart from it." (Proverbs 22:6.)

"Therefore shall ye lay up these my words in your heart and in your soul . . . and ye shall teach them to your children . . . in order that your days may be multiplied and the days of your children . . . as the days of the heavens over the earth." (Deuteronomy 11:19-21.)

"And you fathers, provoke not your children to anger; but bring them up in the discipline and correction of the Lord." (Ephesians 6:4.)

PRINTERS AND EMPLOYERS IN SAN FRANCISCO WILL NEGOTIATE FOR A YEAR ON SIDE ISSUES

● **NEGOTIATIONS** concerning "non-economic clauses" in a proposed contract will continue for a year, according to an understanding reached by the San Francisco Typographical Union Number 21 and the Employing Printers Association of San Francisco.

Meanwhile, during negotiations, both employers and union compositors have agreed to continue operating, with specified "economic provisions" which include wages to be paid from the first day of January, 1948, on a basis of \$2.4133 an hour for seven and one-half hours for day shifts, or \$90.50 a week; \$2.5466 an hour for the first night shift for seven and one-half hours, or \$95.50 a week; and \$2.9384 an hour for six and one-half hours or \$95.50 a week for the second night shift. Each night shift will be paid \$1.00 extra for each shift worked.

The following paragraph in the union's proposal was also accepted by the employers to apply throughout the pending negotiations:

"No change in the provisions governing foremen, apprentices, the luncheon arrangements, overtime, Saturday work, vacations, holidays, except that since Christmas Day in 1948 comes on Saturday, the Friday previous shall be a paid holiday, and as New Year's Day, 1949, comes on Saturday, Friday, December 31, 1948, will be a paid holiday in composing rooms, and paid holidays when worked will be two and one-half times

the regular rate of pay. No revision of our present agreement is contemplated other than those clauses as to which you may desire to secure further legal advice."

The union authorized its negotiating committee to continue negotiations so long as necessary, and to meet as frequently as desirable in order to dispose of those issues upon which the parties "seem to be apart at this time." Continuing, the letter of the union to employers contains this statement:

"Should we find that we cannot hope to reach a meeting of the minds as to those issues, and either party desires to discontinue negotiations, it may do so by giving sixty days' notice to the other party, but with the mutual understanding that such notice cannot be given prior to November 1, 1948."

In his communication to members of the Employing Printers Association of San Francisco, L. A. Ireland, secretary, quoted the correspondence of the union signed by C. M. Baker, its president, and the association concerning the points upon which they agree, and willingness to continue negotiations on other provisions of a "non-economic" character.

The increase of wages provided in the "economic" understanding amounts to \$10.50 a week, with a 37½-hour work week. The basic wages of compositors under the contract which expired December 31 were \$80, or on an hourly basis, \$2.1066.

NEWS COMPOSITORS STILL STRIKE IN CHICAGO WHILE COMMERCIAL PRINTERS GO ON WORKING

● **CHICAGO** continues the battleground to decide issues raised by the "no contract" policy and practices of the International Typographical Union, and the determination of employers both in the newspaper publishing and commercial printing fields to insist that agreements shall be subject to the provisions of the Taft-Hartley Law. Recent developments include:

A formal hearing before the National Labor Relations Board to determine if the ITU has violated the Taft-Hartley Law in refusing to negotiate with employers in good faith. This hearing is expected to continue through the major part of January.

A hearing of the House of Representatives subcommittee on labor is being held to learn the cause of the walkout of Chicago Typographical Union Number 16 from newspaper offices on November 24 which caused the publishers to use substitutes for type composition. Publishers attributed the strike of compositors as being against the Taft-Hartley Law, and not against publishers. Both publishers and strikers' representatives who testified before the congressional committee declared that if there had been no Taft-Hartley Law, there would have been no strike because a regular

contract could have been agreed upon by both parties. The ITU witnesses said that they should have the closed shop, the right to refuse to handle "unfair" work, and otherwise apply their ITU laws without being restricted by a formal contract that would require them to recognize the Taft-Hartley Law.

Commercial printers were not subjected to a strike after the expiration of their contract with the local union at midnight, December 31. Attempts of Franklin Association of Chicago to negotiate a new contract failed because of the refusal of the union to qualify the contract with the words: "This new agreement is written to conform with the Labor-Management Relations Act (Taft-Hartley Law) of 1947." Efforts on the part of the Federal Mediation and Conciliation Service to bring about negotiations by and between the Franklin Association and the union failed. Commercial printers are now working without a contract.

The general impression is that the reason the commercial printers did not go out on strike as Number 16 voted to obtain authority to do, was because the amount of strike benefits to be paid to the 3500 men involved, plus the \$80,000 a week now being paid to newspaper

compositors, was more than the ITU could finance under the present rate of income. Plans are being made to submit to a referendum of the entire ITU membership of 90,000 members to increase the "Defense Fund" income by raising the tax of workers to 4 or 5 per cent of their wages, from the present rate of one-half of one per cent.

Pressmen, feeders, bookbinders, bindery women, and bindery helpers represented in Chicago by five separate unions, have signed contracts with the Franklin Association calling for maintenance of the work week of 36¼ hours, and a raise of \$6.00 a week "across the board for pressmen, feeders, and bookbinders, and \$5.00 a week increase for bindery girls and bindery helpers, with percentage increases for apprentices." In each of the contracts with these unions the provision appears: "This new agreement is written to conform with the Labor-Management Relations Act."

ATF ADVANCES EXECUTIVES

Bradford T. Blauvelt has been elected a vice-president and a director of the American Type Founders, Incorporated, and the American Type Founders Sales Corporation, so President Edward G. Williams has announced. He has also announced the promotion of Milton J. Goger as the comptroller of the two companies.

Mr. Blauvelt joined ATF in 1933 as a member of the accounting staff, was made chief accountant in 1937, and became comptroller in 1945. Mr. Goger has been with ATF since before World War I, joined the accounting department following his return from war service, and in 1946 was made assistant to the comptroller.

GIVE DATA ON NEWSPAPERS

Statistical information concerning circulation of 8,780 weekly newspapers in the United States is presented in a sixteen-page booklet published by the Weekly Newspaper Bureau of the National Editorial Association of which Howard W. Palmer is acting national director, with offices in Syracuse.

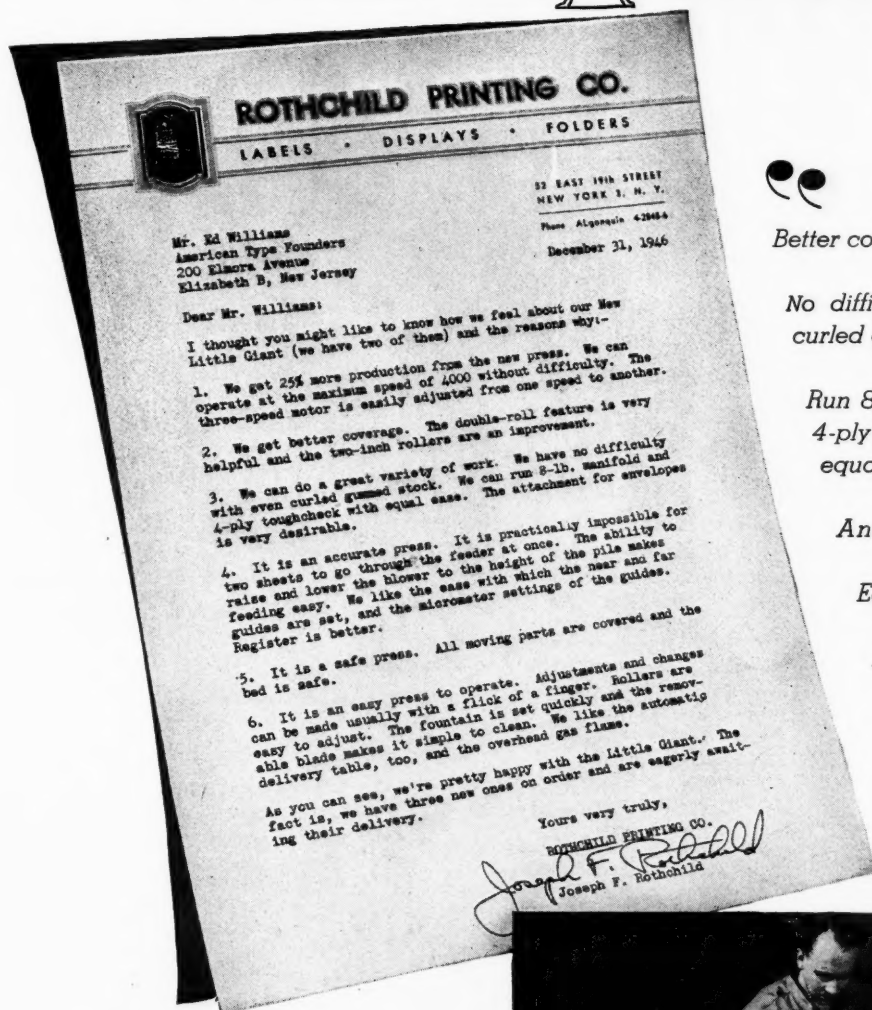
Results of the survey show that 7,680 weekly newspapers, or 87.5 per cent of the total of 8,780, are published in non-metropolitan areas; that 5,460 of the 7,680 are published in towns under 2,500 in population, and that 1,220 weeklies are published in towns of 2,500 and 5,000 population. The total circulation of all weekly newspapers is given as 14,853,640. Of this circulation, 3,346,400 copies circulate in metropolitan areas, while 11,507,240 are non-metropolitan.

Conclusions represented by graphs are that one-third of all families in the United States are reached by weekly newspapers; one-half of the total families live in places of 10,000 population and under, including rural areas; three-fifths of this half are reached by weekly newspapers; and four-fifths of the circulation of weekly newspapers circulate in communities of less than 10,000 population.

"25% more production..."

—says this NEW YORK printer after operating

THE NEW ATF LITTLE GIANT



Better coverage...

No difficulty with even curled gummed stock...

Run 8-lb. manifold and 4-ply toughcheck with equal ease.

An accurate press...

Easy press to operate..

Adjustments made with a flick of the finger..

Three more on order.



Ask your ATF Salesman to explain the ATF Little Giant's many exclusive money-making features, and show you commercial samples it has produced for other printers.

**American
Type Founders**

200 Elmora Avenue, Elizabeth B, N. J.



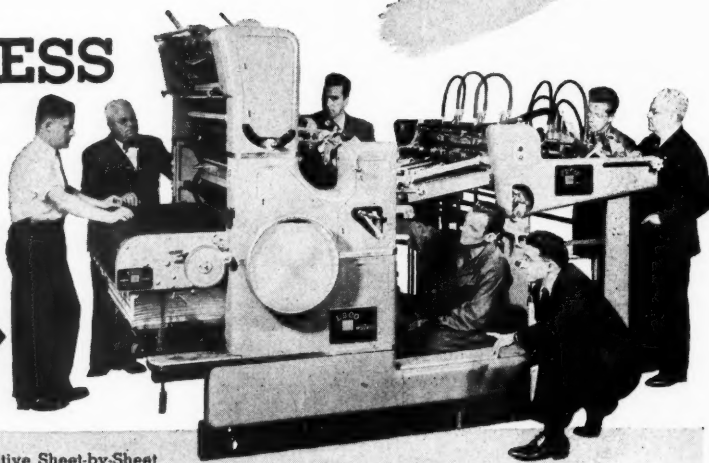
For Items Not Advertised, Write THE INLAND PRINTER'S "Readers' Service"

CHECK and COMPARE

E.B.CO



OFFSET PRESS



MORE DEPENDABILITY

Positive Sheet-by-Sheet
Reloading Type Feeder
Positive Sheet Control
from Feeder to Guides
Pre-Register Slow-Down Guides
Unique Patented Front Guides
Patented Pull Side Guide
Positive Register Detectors
Three Point Registering
Mechanism
Skeleton Feeding Cylinder
Efficient Adequate
Dampening Motion
Accessible Sturdy
Dampening Rollers
E.B.CO Plated Water Rollers
Inker Driven from Main Drive
Ink Fountain Holds Ample Supply
of Ink
Cylinders Balanced on Tapered
Roller Bearings
Patented Individually Sprung
Grippers
Four Form Rollers of Different
Diameters
Variable Accurate Ink Fountain
Easily Cleaned
Quick Accurate Paper Thickness
Setting

MORE EFFICIENCY

Full Sight Large Diameter
Inking Rollers
Patented Fast Action Plate
Clamps
Rapid Accurate Plate Cylinder
Adjustment
Proper Blanket Tension Easily Applied
Inbuilt Automatic Clear View Delivery
Streamlined for Safety
Scientific Color Finishes
Easy to Clean Wear Resistant Enamels
Correctly Designed Heavy Jig
Bored Side Frames
Rugged One Piece Welded Steel Base
Accuracy in Gear Manufacturing
Careful Inspection in Manufacturing
Run-in and Tested at Factory
Comparatively Easy to Learn to Operate
"V" Belt Drive from
Variable Speed Motor
Well Guarded but Permits
Access to Working Parts
Reduced Maintenance —
Standard Replacement Parts
Simplified Operating Press Controls
Up to 6,000 I.P.H.—Plus Less Down-Time

MORE ACCESSIBILITY



FOR COMPLETE DETAILS SEND
FOR BOOKLET. CLIP THIS COU-
PON TO YOUR LETTERHEAD.

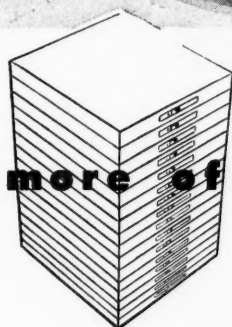
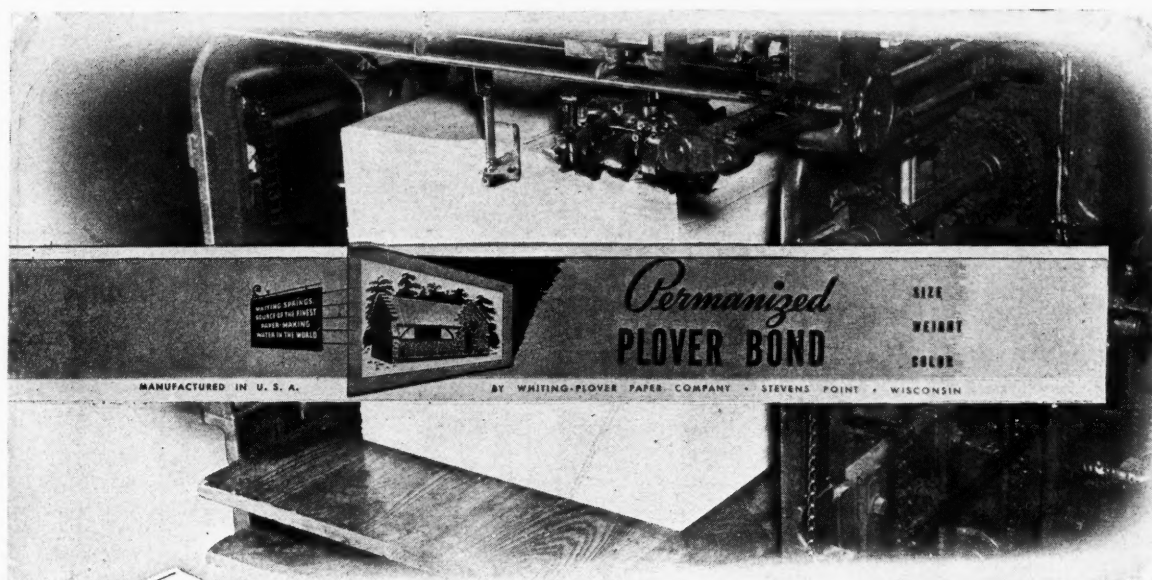
E.B.CO

PRINTING MACHINERY DIVISION ELECTRIC BOAT COMPANY

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CHICAGO OFFICE: 400 W. MADISON ST., CHICAGO 6, ILL.

MORE PROFIT

OUR THANKS to the
many firms in the industry
who pioneered, tested and
PROVED the finer work-
ing qualities of the E.B.CO
Offset Press.



more of *Permanized Plover Bond* it...and better than ever...

There's more *Permanized Plover Bond* available. Just give your *Permanized Paper* Distributor a little advance notice, and chances are good you'll get what you want...when you want it.

This is welcome news to printers (and their customers) all over the country, for *Permanized Plover Bond* — on merit alone — has gained the reputation as the outstanding buy in the 25% Cotton Content field.

It's smart to standardize on *Permanized Plover Bond*. Extra-bulk is the primary reason for its trouble-free press performance, even at very high speeds. Handsome appearance makes customers happy... keeps them coming back for more.

Brite-White and seven colors... light and full cockle finishes... Substances 13, 16, 20 and 24... almost anything you want in paper with that rare combination of quality and economy — *Permanized Plover Bond*. Free samples available through 120 *Permanized Paper* Distributors throughout the country. WHITING-PLOVER PAPER COMPANY, STEVENS POINT, WISCONSIN.

Permanized Plover Bond

Also: *Permanized Plover Laid* • *Permanized Plover Bond Opaque* • *Permanized Plover Letter* • *Permanized Plover Ledger* • *Permanized Plover Onion Skin* • *Permanized Plover Manuscript Cover*

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JANUARY 15-30



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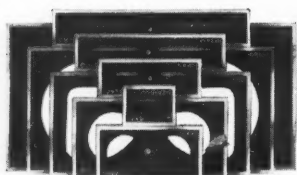


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144 years ago. If you use
Johnson Inks you know why
our rights to the claim have
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**CHARLES F. Johnson
AND COMPANY**

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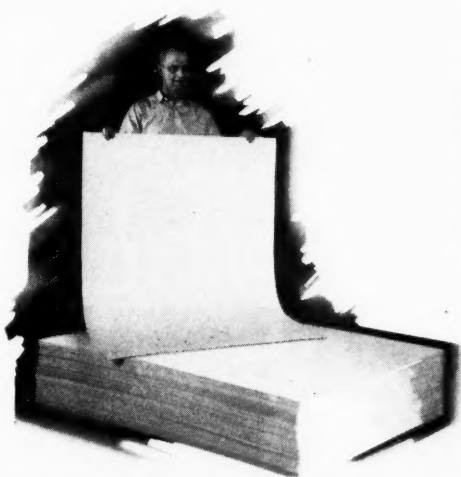
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...FROM FOREST TO FINISHED SHEET



Detroit Sulphite papermaking starts in our own Canadian timber limits. Throughout all of the intricate papermaking processes—from forest through mill—every operation is "quality controlled" by Detroit Sulphite and receives close on-the-spot supervision. All this is done for but one purpose: to produce for you papers of superior quality, strength and durability.

This "quality control" is your assurance of finer, more uniform printing results from every sheet of Cordova Cover and Bristol. Cordova is available at your paper distributors in choice of many sparkling colors, including white.

Cordova **COVERS · BRISTOLS**

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 ALUMINUM COMPANY
 OF AMERICA

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FOR delivery now—
 sturdy, light-weight,
 rust-proof galleys.
 Racks of durable alu-
 minum! 65% lighter,
 rack and 100 galleys
 weigh only 126 lbs!
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 Every rack and galley
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PAPER JOGGERS

No fuss—no both-
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 in the rack, or feed it
 in directly from the
 press — and let the
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 quickly, quietly, and
 perfectly.



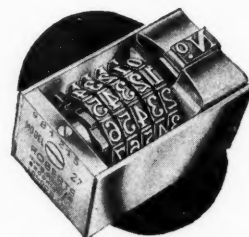
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 Machines is small. The
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ORDER DIRECT
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Model 27, 5 wheel capacity

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Either forward or
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The life of a Roberts Machine is
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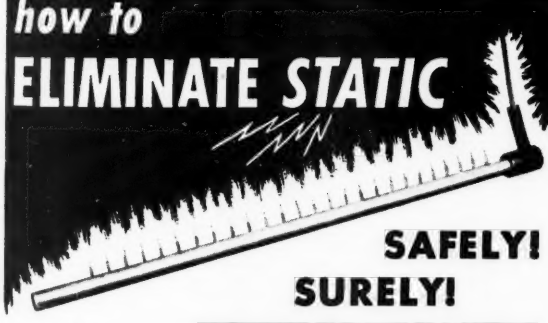
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**SAFELY!
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The moment you install the OXY NEUTRALIZER BAR,
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For Fine Quality Labels

An unusually smooth, mirror-like surface for outstanding graphic effects and lasting results—that's new Trojan MIRROGLOSS! Used with transparent inks, the soft MIRROGLOSS surface with its high-finish gives you truly extraordinary gummed labels. Perfect for letterpress or offset printing. New Trojan MIRROGLOSS coated gummed papers are available now . . . in Ivory or white . . . gummed with AAA Dextrine or strong glue.



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OFFICES • TROY, OHIO • MILLS

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"When you think of gummed products, think of GUMMED PRODUCTS"

DO YOU KNOW . . .



When and Where Italics Were First Used?

Aldus Manutius, a noted Venetian printer, is credited with being the originator of Italics. In his day, books (both written and printed) were rather ponderous. Realizing the need for smaller editions, Manutius resolved to perfect a type face that was more compact, yet just as readable as conventional faces. As his model he used the close, precise, yet free-flowing handwriting of the Italian poet, Petrarch.

In 1501 a small octavo edition of Virgil was published in this new face. Although this edition had Italics in lower case letters only, it was much in demand.

Seeing this demand, Manutius, a good business man as well as a master printer, obtained a letter of privilege from Pope Leo X. This letter granted Manutius the exclusive right to use the new type.

Since this new form was originated and first used in Italy, the name *Italic*, meaning "from Italy" was given to it.


The fact that Italics have been in constant demand by the printing industry for five centuries is conclusive proof of their worth. Time is indeed a true test, and we can say with pride that Blatchford Metal has passed this test with flying colors. For over 90 years Blatchford has been supplying superior type metal. Users say—"Darn good stuff, Blatchford." Truly a time-tested metal.

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Blatchford
METAL



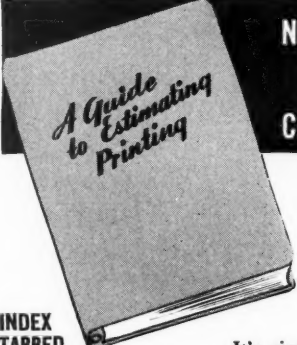
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Behind every ink that leaves the S & V plant, stands more than fifty years of traditions . . . traditions of high standards and superlative craftsmanship in preparing the inks for the presses of America.

SINCLAIR and VALENTINE Co.
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SERVICE FROM COAST TO COAST



New and Scientific Method of Pricing Commercial Printing

NEW REVISED EDITION \$12.50

INDEX TABBED

- ★Price tables and schedules based on years of research, and analysis.
- ★Price schedules checked against production records of many cities.
- ★Covers paper stock, composition, makeup, lockup, ink, presswork, trimming, bindery work . . . plus special sections on machine ruling.
- ★Saves time, money, prevents errors and omissions, increases customer confidence.
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It's simple yet accurate. It's complete yet compact. It's scientific yet easy to use. There's nothing else like it on the market.

Contains tables for obtaining the amount of material required and the manufacturing costs of the various operations for both letterpress and offset printing.

You don't have to be an estimator or an engineer to use "A Guide to Estimating Printing" . . . an hour or two of study, to become familiar with the tables, will enable anyone to determine the price of printed jobs. Order your copy . . . today.

THE INLAND PRINTER BOOK DEPARTMENT
309 W. Jackson Blvd., Chicago 6, Illinois



The Taylor Registerscope

By its use forms of all kinds are made up so accurately before they go to press that press standing time is reduced to a minimum.

What a recent purchaser writes:

"When I tell you that we are getting our forms on press in what I would call 90% in register, you can readily realize that if we could not get another one, no one could pry us loose from this new installation."

An increasing number of printers are installing Taylor Registerscopes. By cutting down makeup time and by reducing press standing time to a minimum they save the time that costs most.


TAYLOR MACHINE COMPANY
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TEN POINTS OF SUPERIORITY

are incorporated in the
NEW HILDEBRAND EXTENSION DELIVERY


For FULL DETAILS write to
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GILBERT PAPER COMPANY

MANUFACTURERS OF COTTON CONTENT WRITING PAPER

MENASHA WISCONSIN



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75% COTTON FIBRE
U. S. A.

This Gilbert **RADIANCE BOND** watermark identifies a 75% new-cotton-fibre paper of eye-catching beauty. It is tub sized and air dried to attain a distinctive cockle finish and crisp, impressive crackle. Radiance Bond assures handsome business stationery, and high permanence for important documents and records. Specify Radiance Bond through your printer, lithographer, engraver or Gilbert Radiance Bond merchant.

GILBERT PAPER COMPANY • Established 1887 • Menasha, Wisconsin
New-Cotton-Fibre-Content Bond, Ledger, Index and Onionskin Papers





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FOR NUMBERING

Since 1885 Weller has had the typographic numbering machine to be relied on for profits. Weller was better when it was first in the field with the self-contained plunger—even better today with its seven exclusive construction features.



Weller

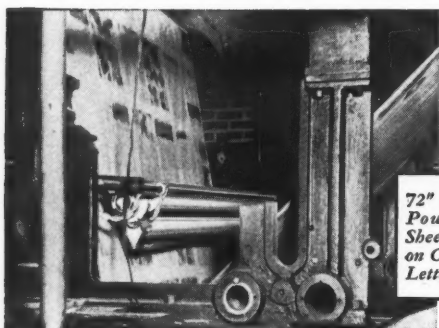
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125+

THAT is the number of type faces we can furnish for your customers. All new, with clear sharp printing surfaces. Coated proofs for reproduction purposes, will become a pleasure for your customer, and a source of satisfaction for you. And remember, there is no metal to buy, or type to store.

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MARYLAND-2

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72" Doyle Super-Power Infrared Sheet Dryer in use on Cottrell Rotary Letterpress.

DOYLE Super-Power Infrared Sheet Dryers easily installed on any press

Close quarters and other working limitations present no difficult problems when you consider the installation of Doyle Sheet Dryers. Also as illustrated above, the use of Doyle Sheet Dryers requires no alterations in existing press equipment.

Doyle Sheet Dryers are made in lengths up to 72 inches, and are widely used on presses of all types, flat bed and rotary, letterpress, offset and gravure. When slow drying slows up press production frequently they enable presses to be run at normal speeds.

Write for complete bulletin, mentioning type of press equipment you now have. We shall be glad to include photo sheets illustrating similar installations.

The J. E. Doyle Company

1220 WEST 6TH ST.

CLEVELAND 13, OHIO

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• Hi-Pro Paper Drills, Rotary Round Hole and Slot Hole Perforators, Snap-Out Perforators, Power and Foot-Power Vertical Perforators, Hand Perforators, Power and Foot-Power Punching Machines, and Gang Stitchers.

F. P. ROSBACK COMPANY

Largest Perforator Factory in the World
BENTON HARBOR, MICHIGAN



Bond, Ledger and Onion Skin Business Papers of 100%, 75%, 50% and 25% New Cotton Fibre.

FOX RIVER PAPER CORPORATION, APPLETON, WISCONSIN

THE INLAND PRINTER

Volume 120 ★ January 1948 ★ Number 4

PUBLISHED MONTHLY BY MACLEAN-HUNTER PUBLISHING CORPORATION

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JOHN R. THOMPSON, Vice-President and Treasurer

J. L. FRAZIER, Secretary

309 WEST JACKSON BOULEVARD, CHICAGO 6, ILL., U. S. A.

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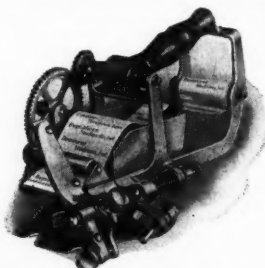
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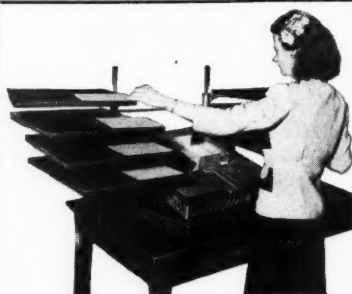
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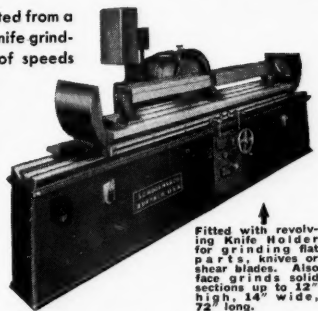
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from SLOW TRAVERSE . . . 5 ft. per minute
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ELECTRONIC CONTROL, operated from a single dial, makes for ultimate knife grinding accuracy. A wide range of speeds can be preset or changed while running. Reversing, quick stopping and complete control at all times are automatically provided for. All vibration noise or shock at reversals is eliminated. Write for literature describing Rogers NT-20, the first machine of its kind.



Fitted with revolving Knife Holder for grinding flat parts, knives or shear blades. Also face grinds solid sections up to 12" high, 14" wide, 72" long.

Pioneer Knife Grinding Manufacturers for Over 60 Years

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ROGERS KNIFE GRINDERS

PRECISION QUALITY SINCE 1887

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Second edition—thoroughly revised. 656 pages. 34-page Index. Size of book 6x9½—120 halftones, line-cuts and diagrams. Cover gold stamped.

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Advertising Men, Editors and Printers are finding the use of Cobb Shinn's Stock Cut Service gives their printed matter that extra "pull."

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IMMEDIATE DELIVERY

- 2—No. 3 Smyth Book Sewers.
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- 1—38" Hickok Ruling Machine Feeder.
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- 1—3H Morrison Book Stitcher 5/8" Capacity.
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Model "A" Champion Book Stitchers, capacity 1/4".
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BE ACCURATE
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STREAMLINE STEEL TAPE RULES

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Dimensions printed on both sides of tapes.

Chrome nickel "Streamline" case highly polished—easy to carry in pocket.

Locking device holds true measurement for accurate reading.

Arrow indicates inside measurement.

Large hook assures firm grip on surface to be measured.

Blade replaceable in an instant.

MORGANS & WILCOX MFG. CO.

MIDDLETOWN, N. Y.

PRINTERS SUPPLIES SINCE 1878

DEALERS IN PRINCIPAL CITIES

Classified Buyers' Guide

BRONZING MACHINES

• **MILWAUKEE BRONZERS**—for all presses. Some rebuilt units. C. B. Henschell Mfg. Co., Milwaukee, Wis.

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• **A CHICAGO PRINTING SALES OFFICE FOR YOU**—For more than twenty years we have been selling several hundred thousand dollars worth of printing annually, mostly Catalogues, Advertising Printing and Publications, to well known regular customers in Chicago and surrounding territory. Because of increased volume we are looking for a permanent connection with one or two capable, sizeable printers overnight from Chicago, or in Chicago. This is a real opportunity for a responsible printer to permanently enter the Chicago market without cost or hazard, through an old established organization with a thorough knowledge of the territory and an understanding of printing. We maintain sales, service and purchasing offices, are well rated and financially strong. We will handle sales, service and carry the account, enabling you to concentrate on production. We are seriously interested in a permanent connection with a reliable, capable printer. Write Box J-1133 % The Inland Printer, 309 W. Jackson Blvd., Chicago 6, Ill.

• **FOR SALE**—Account owner's failing health, 50 year old trade typesetting plant, one of country's fastest growing cities, now 750,000, expected to be close to 3,000,000 in five years. Plant equipped for best quality complete form service all types of office forms, books, catalogues, etc. Two linotypes, Ludlow, Elrod, saws, all accessory equipment invoicing around \$35,000. Plant conveniently handles around \$8000 monthly efficiently with payroll ratio around 60%; this class of work. Owner anxious to see business expanded and will add equipment as needed. Not for sale but long lease will be considered. Lease \$600.00 monthly or \$500 monthly plus 15% gross sales above \$6000 monthly with right reserved to help develop sales territory. \$3600 cash to handle. Only persons with proven business building ability and showing prospect being able to set up right organization to assure success considered. First best offer gets this as owner anxious to leave at once. Write Box J-1158 % The Inland Printer, 309 W. Jackson Blvd., Chicago 6, Ill.

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• **CALENDAR PADS**—67 Styles and Sizes. Write for catalog. Calendar backs for advertising, sheet pictures. Wiebush Calendar Imptg. Co., 80 Franklin St., New York 13, N. Y.

• **WHOLESALE CALENDARS TO PRINTERS. DO YOUR OWN IM-PRINTING—FULL LINE. FLEMING CALENDAR CO., 6540 COTTAGE GROVE AVE., CHICAGO 37, ILLINOIS.**

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• **WEDDING INVITATIONS** and other engraved stationery of fine quality. Siegrist Engraving Co., 924 Oak St., Kansas City 13, Mo.

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Wanted: Bookbinding Equipment

Owner of large South American bookbinding establishment, who is now in New York, is desirous of purchasing used bookbinding equipment in good condition. Please describe equipment in detail and indicate where it may be seen. Reply to box No. J-1149, c/o The Inland Printer, 309 W. Jackson Blvd., Chicago 6, Illinois.

• **EQUIPMENT WANTED:** Cylinder Press capable of taking 38" x 50" sheet, pref. Miehle or Babcock with feed and delivery. Also Elrod Casting Equipment. Write Box J-1157 % The Inland Printer, 309 W. Jackson Blvd., Chicago 6, Ill.

• **ONE LARGE MIEHLE PRESS 5-0 or 5-0 special** with cross feeder in good running condition. Send full particulars. The Hi-Elmer Manufacturing Company, 510 Wabash Ave., Decatur, Illinois.

FOR SALE

CHICAGO PRINTER OFFERS THREE LATE-TYPE MIEHLE PRESSES

Two Tandem Miehle Two Color Horizontal Presses, 700 serials. Chain delivery, pile feeders. D. C. current. Maximum sheet size 22"x28"; minimum, 8 1/2"x11".

One 41" Miehle Single Color Press, 18000 serial. Tape delivery, pile feeder. D. C. current. Maximum sheet size 28"x40 1/2"; minimum, 11"x17".

These presses are all in good condition, now running in a large Chicago plant. If interested write Box J 1154, THE INLAND PRINTER, 309 W. Jackson Blvd., Chicago 6.

FOR SALE (Continued)

MILLER TWO-COLOR 4-TRACK 27x41 PRESS HARRIS, LB MODEL, 41x54 OFFSET PRESS

Miller Simplex 20x26
Three No. 2 Kelly Presses
Rosback Gang Stitcher
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Seybold 48" Automatic Clamp Cutter
Diamond 34 1/2" Power Cutter
2 Rowe continuous 3-Knife Trimmers
2 Hickok Disc Ruling Machines. One 38" straight machine. One 38" "L" type. Practically new at a substantial discount.

J. SPERO & CO.

372 W. Ontario St. Chicago 10, Ill.
Phone: Delaware 5966

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(Continued on next page)

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Tag presses, 1 and 2 color

Send us a list of your surplus equipment, single units or complete plants

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(Continued on next page)



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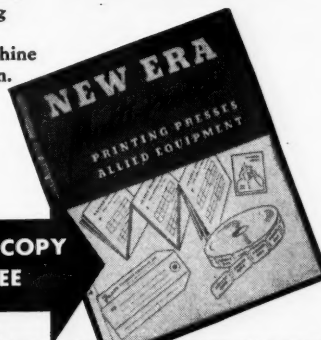
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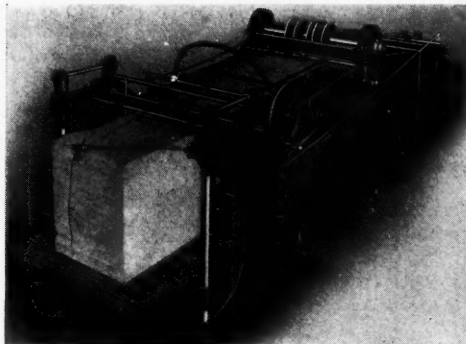
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FOR SALE (Continued)

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(Continued on next page)

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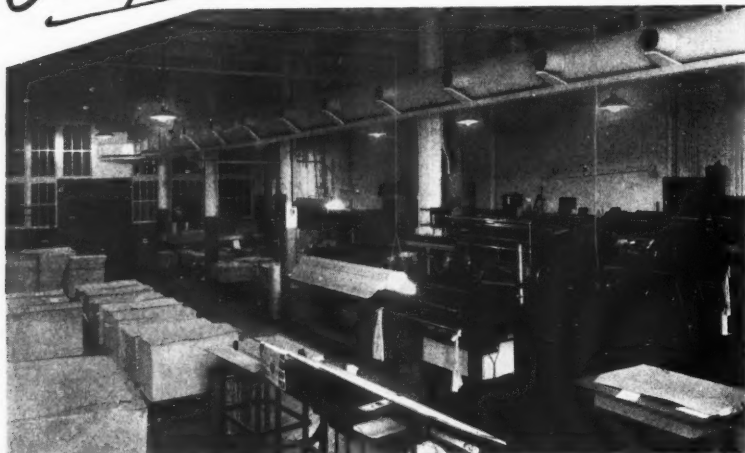
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humidifying
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cooling
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SOLD BY LEADING PRINTERS, SUPPLY DEALERS
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T-P CO. 1000 BROADWAY - KANSAS CITY, MO.

(Continued on next page)

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• **SUPERINTENDENT and/or MAN-AGER.** Letterpress & Offset. Good knowledge of management, office, estimating, costs, planned production, efficient methods, systems, Labor Relations, etc. Diversified quality, med.-size commercial shops. Business education, 25 yrs. proven practical exp. 12 yrs. as Supt. Age 45. Avail. Excellent aptitude ratings. Chicago trained. Central states or Pacific Coast desired. Write Box J-1156 % The Inland Printer, 309 W. Jackson Blvd., Chicago 6, Ill.

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• **WANTED—Hard foundry type metal** for cash or trade. Missouri Central Type Foundry, Wichita, Kansas.

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TYPEMETER
A simple, easy-to-use method of copyfitting for advertising layout. Accurately shows the number of average characters of any typeface, any size, in lines of any measure. Five dollars a copy with all instructions. Book Dept. The Inland Printer or write Elco Typographic Service, Second & Dueser, S. W., Canton 6, Ohio.

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little loss of time. As soon as appropriate distribution was achieved, an attempt was made to get space in national magazines. But at that time as space was scarce and previous advertisers had first crack at whatever was open, Valliant with no record as a past advertiser

To combat the belief that training or specialized knowledge required in serving wines, the "Good taste with any food" was featured. Since its first appearance, three years ago, it has been used continuously. Sometimes it is embodied in the copy, sometimes it becomes a subordinate headline or appears where in the ad.

establish Valliant California premium-quality line in the face situation in which many products had been extended for a number of years acceptance. To make a dry table wine, though only a small American families serve reasonable frequency, tion of table wines other than sweet

ective was doing bidding job for the market for table secondary ob- selling women women largely dinner table; se with meals pus; and en- man people's don'ts they ng of wine.

was limited t of mar- by adver- after city Discrimi- needed.

LETTERS ARE
meant to be read!

To keep your letters out of that popular file, the wastebasket... put your story on a subtly different paper—a paper that matches the importance of your story. Ask your printer. Because he is wise in the wherefores of paper it's more than likely he will recommend that you use Rising Line Marque.

Rising Line Marque

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- ✓ 3 pastel shades and white
- ✓ envelopes in 6 sizes
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Rising Papers

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Rising Papers

ASK YOUR PRINTER... HE KNOWS PAPER!

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... There's *always* a Rising Paper that's right for the job!



Rising Papers

PRINTING AND TECHNICAL

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PAJAMAS were 2.50 - 4.00 . **1.95**
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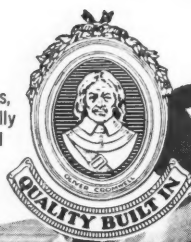
Look to Progressive Intertype



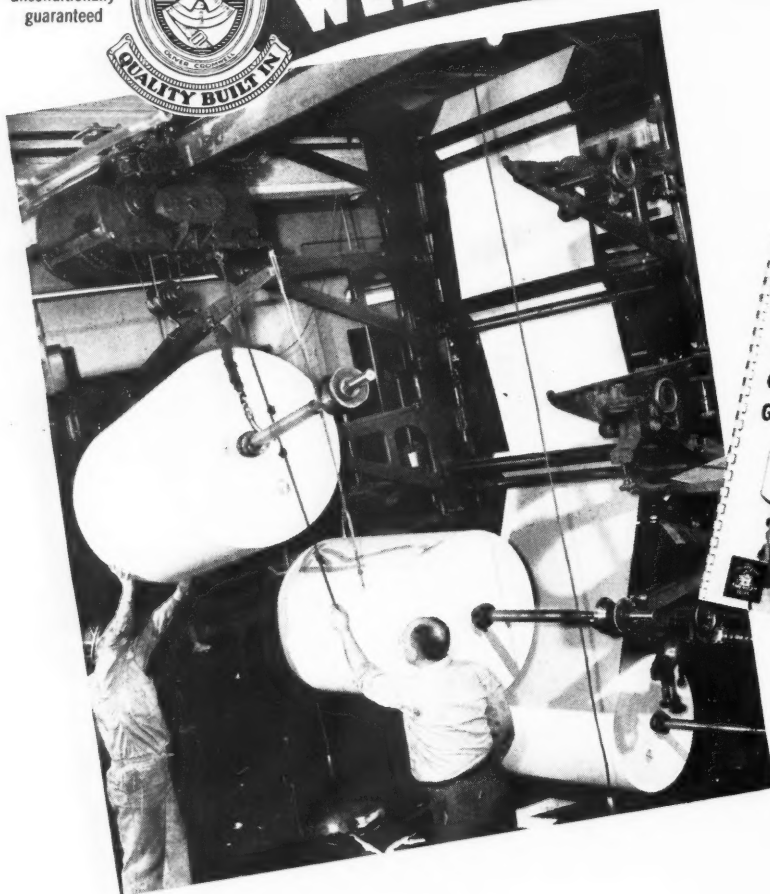
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unconditionally
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